

This portion of Existing Concrete Channel & CMP to be removed

Existing 2-4" TED 100' Conduit across road

Note: For details of Likie Highway See Sheet No. 23

NOTE: All work on Army Cable is to be done and paid for by the US Army. Coordinate all work with U.S. Army Signal Corps

Thomas S. Azama (Owner)
Warren S. Azama (Owner)

Centex-Trousdale Company (Owner)

PLAN
Scale: 1"=40'

PROFILE 'A'

PROFILE 'B'

PROPERTY OF DIVISION OF ENGINEERING

AS BUILT M.M.V.

JOB NO. 12-63

REVISION DATE	DESCRIPTION	MADE BY	APPROVED
5-24-63	Inv. of pipe extension, alt. for drain pipe, fence schedule	R.M. J.	R.A.

COMMUNITY PLANNING INCORPORATED
CIVIL ENGINEERS - SURVEYORS - CONSULTANT PLANNERS

DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU

DIVISION OF ENGINEERING
IMPROVEMENT DISTRICT NO. 162

KAHALU CUTOFF ROAD
KANEHE, HEEIA, AHUIMANU & KAHALU, KOOLAPOKO, OAHU

STA. 5+64.58 TO STA. 13+00
PLAN & PROFILE

ENGINEER M.H.I.
DATE 8-1-62

DRAFTSMAN L.A.
CHECKED BY S.T.F.

SCALE AS SHOWN
TRACER R.A.

APPROVED
CHIEF ENGINEER
DATE 9-25-62

W.S. PROFILE C.B.
CR. SEC. F.B. S.B.
W.B. BY: F.W. BY: S. BY:

APPROVED
REG. ENGR. CERT. NO. 470-E

FILE 12
POCKET 9
FOLDER 3
NO. 5

SHEET 5 OF 62 SHEETS

GUARDRAIL SCHEDULE		
Station	Lineal Feet	
Right Side		
1- 3+00 to 16+35	735	
2- 16+35 to 27+60	925	
3- 27+60 to 38+65	860	
4- 38+65 to 43+00	840	
5- 43+00 to 48+50	670	
6- 48+50 to 53+50	550	
7- 53+50 to 58+50	300	
8- 58+50 to 63+00	220	
Left Side		
1- 53+95 to 59+50	555	
2- 59+50 to 72+50	700	
3- 72+50 to 78+00	600	
4- 78+00 to 84+47 (Across End of Roadway)	45	
TOTAL	6980	

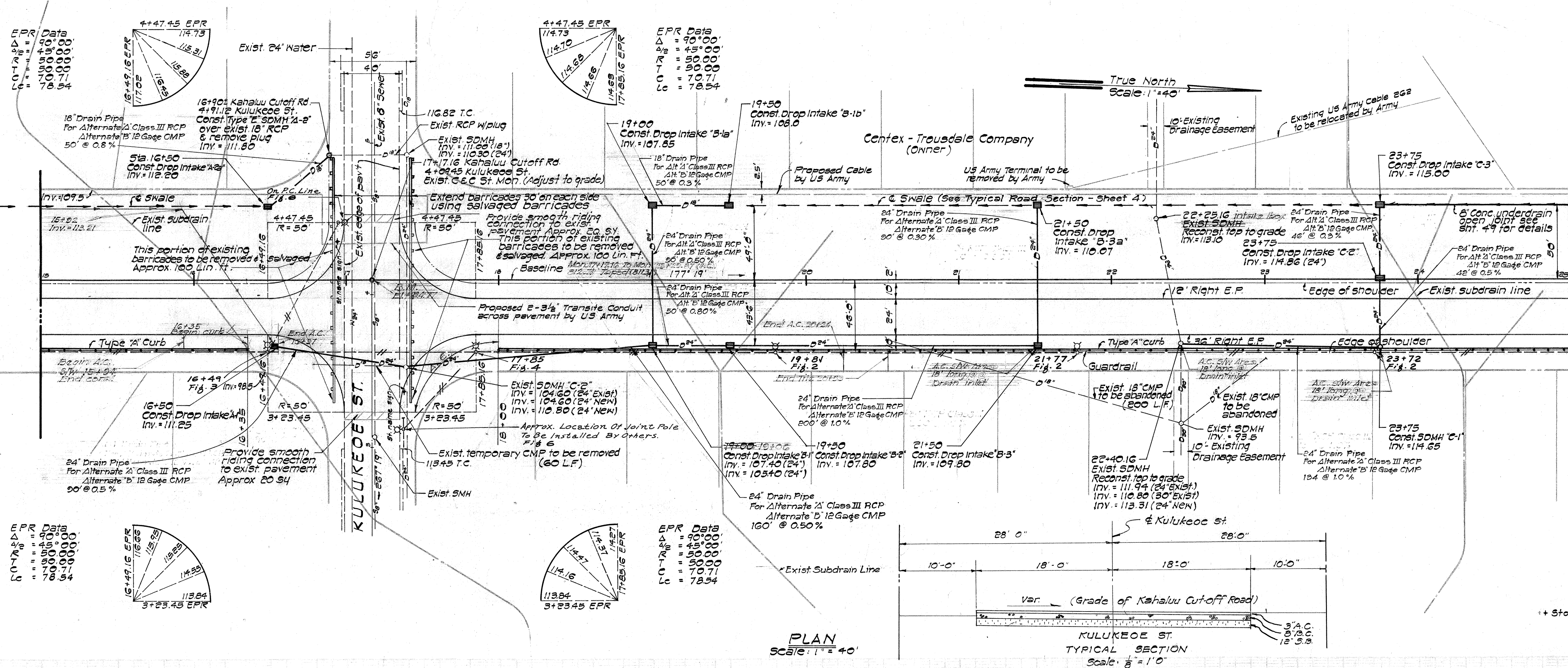
Note: All guardrails shall be metal with concrete posts unless otherwise shown on the plans. Concrete posts shall be 5'-10" unless otherwise shown on the typical roadway cross sections.

FENCE SCHEDULE		
Station	Lineal Feet	
Right Side		
1- 25+23 to 49+98	475	
2- 49+98 to 56+70	108	
3- 56+70 to 62+90	487	
4- 62+90 to 174+95	140	
Left Side		
1- 46+39 to 50+60	421	
2- 50+60 to 57+05	60	
3- 57+05 to 63+10	417	
4- 63+10 to 64+40	120	
TOTAL	2228 L.F.	

Note: All fences shall be Galv. barbed wire with wood posts unless otherwise shown on plans.

60' High Chain Link Fence	172+25 to 173+55	130 L.F.
40' High Chain Link Fence	173+55 to 174+95	30 L.F.
1- 27+34 to 33+93	660	
2- 34+45 to 35+44	114	
3- 35+53 to 40+25	472	
4- 40+54 to 44+00	346	
TOTAL	1592 L.F.	

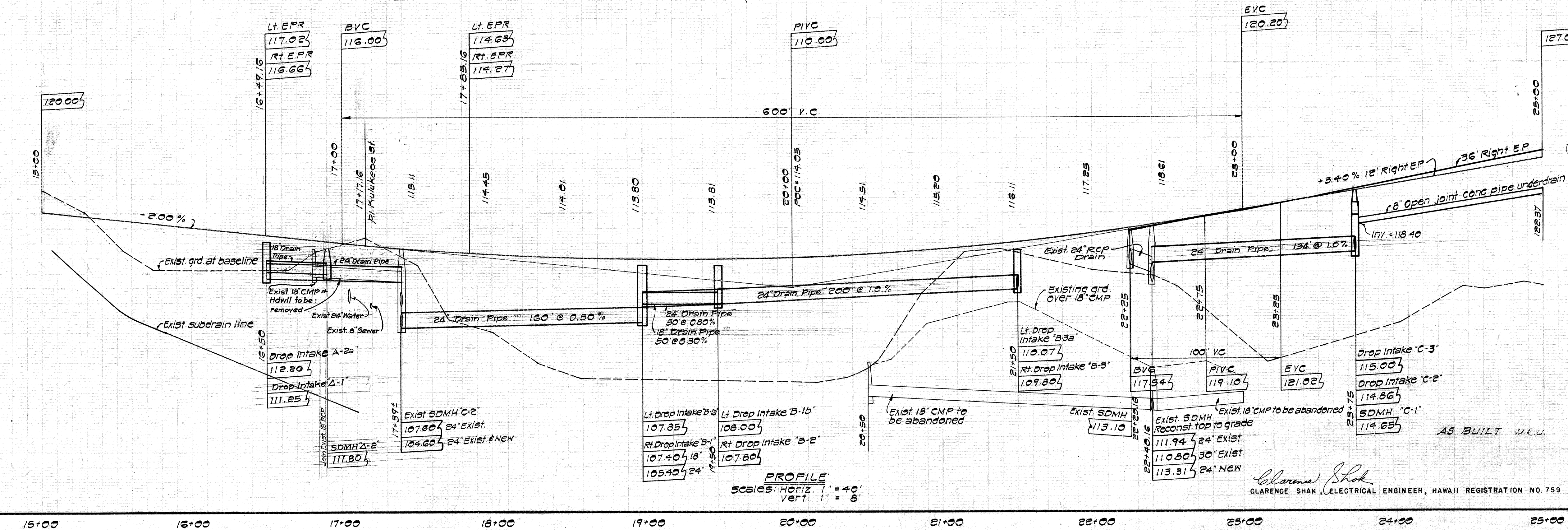
Note: All fences shall be Galv. barbed wire with wood posts unless otherwise shown on plans.



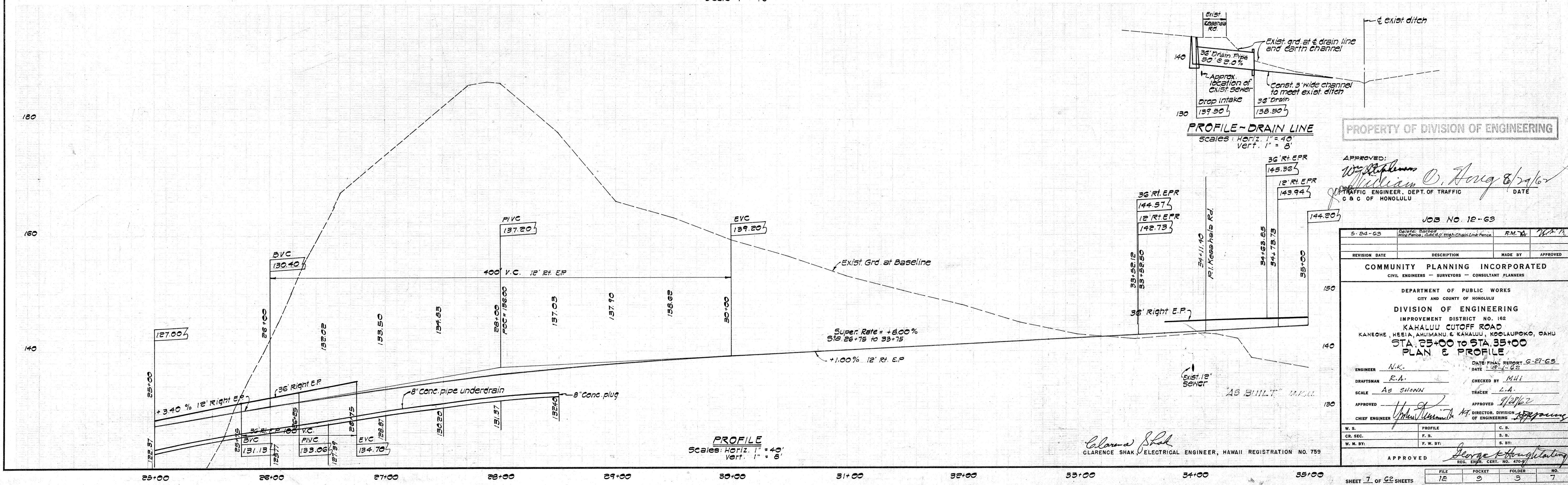
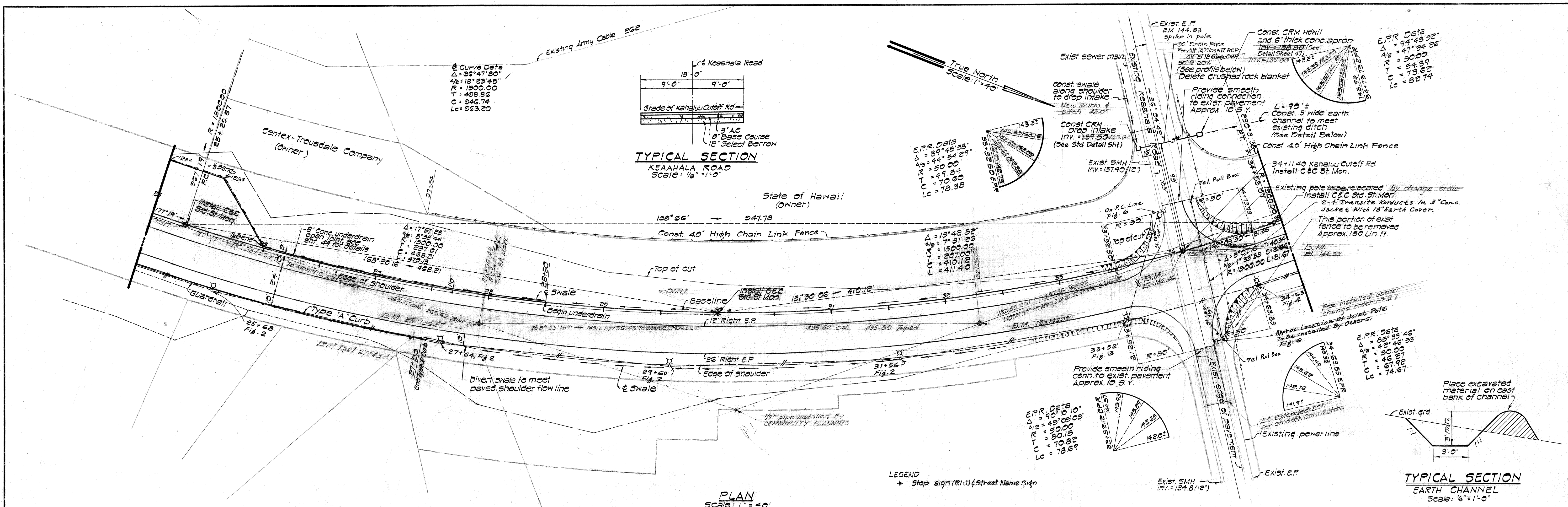
Note:
All existing 18" CMP to be abandoned shall be filled with concrete and plugged with brick bulkhead except where otherwise noted.

NOTE:
All work on Army Cable to be done and paid for by US Army. Coordinate all work with U.S. Army Signal Corps.

Note: Delete crushed rock blanket for drainage system on this sheet.



PROPERTY OF DIVISION OF ENGINEERING			
APPROVED: <i>[Signature]</i> DATE: 8/29/62			
ASST. CHIEF ENGINEER BWS			
TRAFFIC ENGINEER, DEPT. OF TRANSPORTATION			
HONOLULU			
JOB NO. 12-63			
5-24-63	Alt. Drain Pipe	R.M. 102	102-10
REVISION DATE	DESCRIPTION	MADE BY	APPROVED
COMMUNITY PLANNING INCORPORATED			
CIVIL ENGINEERS - SURVEYORS - CONSULTANT PLANNERS			
DEPARTMENT OF PUBLIC WORKS			
CITY AND COUNTY OF HONOLULU			
DIVISION OF ENGINEERING			
IMPROVEMENT DISTRICT NO. 162			
KAHALU CUTOFF ROAD			
KANEHE, HEEA, AHUIMANU & KAHALU, KOOLAUPOKO, OAHU			
STA. 15+00 TO STA. 25+00			
PLAN & PROFILE			
ENGINEER	N.K.	DATE	8-1-63
DRAFTSMAN	E.A.	CHECKED BY	M.H.I.
SCALE	AS SHOWN	TRACED BY	L.A.
APPROVED	<i>[Signature]</i>	APPROVED	<i>[Signature]</i>
CHIEF ENGINEER	AS BUILT	REG. ENGR. CERT. NO. 470-E	
W. S.	PROFILE	C. D.	
CR. SEC.	F. B.	S. B.	
W. M. BY:	F. W. BY:	S. BY:	
APPROVED: <i>[Signature]</i>			
FILE	POCKET	FOLDER	NO.
12		3	2



PROPERTY OF DIVISION OF ENGINEERING

APPROVED: *William C. Hong* 8/24/62
TRAFFIC ENGINEER, DEPT. OF TRAFFIC
C & C OF HONOLULU

DATE: 8-27-62

JOB NO. 12-63

REVISION DATE	DESCRIPTION	MADE BY	APPROVED
5-24-63	Revised: Backed into Paving, 12' High Chain Link Fence	R.M. J.	M.A. M.

COMMUNITY PLANNING INCORPORATED
CIVIL ENGINEERS - SURVEYORS - CONSULTANT PLANNERS

DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU

DIVISION OF ENGINEERING
IMPROVEMENT DISTRICT NO. 162
KAHALU CUTOFF ROAD
KANEHOE, HEEIA, AHUIMANU & KAHALU, KOOLAPOKO, OAHU

STA. 25+00 TO STA. 35+00
PLAN & PROFILE

ENGINEER: N.K.
DATE: 8-27-62
CHECKED BY: M.H.I.
DRAFTSMAN: R.A.
SCALE: AS SHOWN
TRACER: L.A.
APPROVED: *George K. Hong* 8/24/62
DIRECTOR, DIVISION OF ENGINEERING

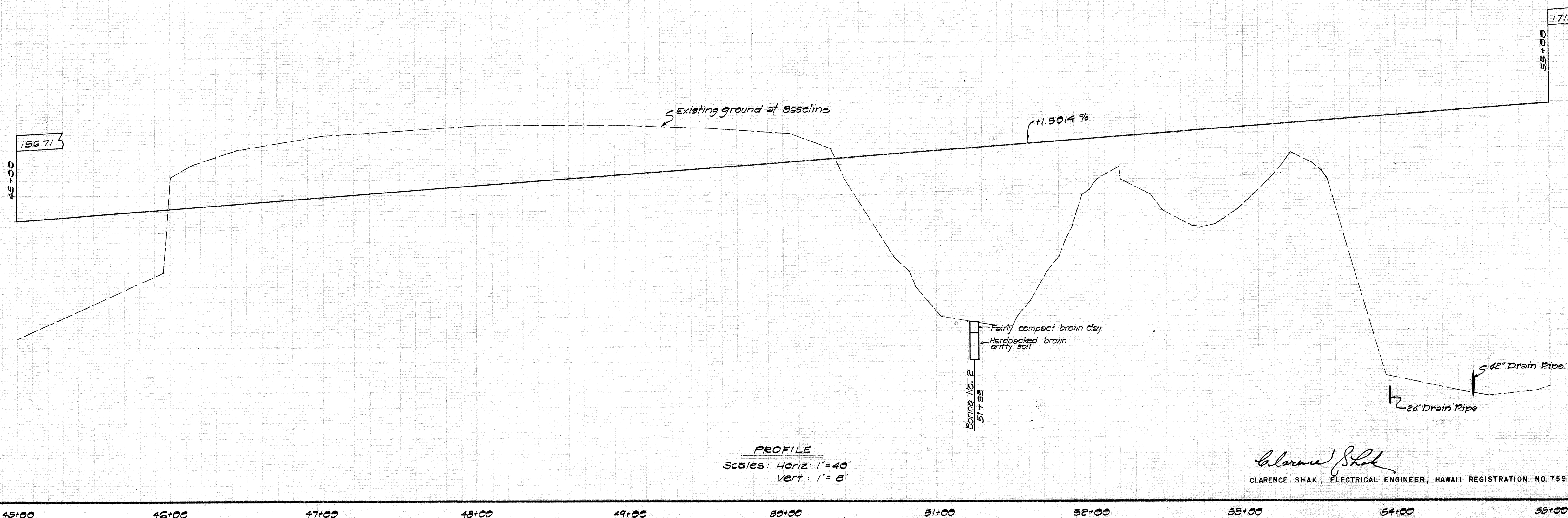
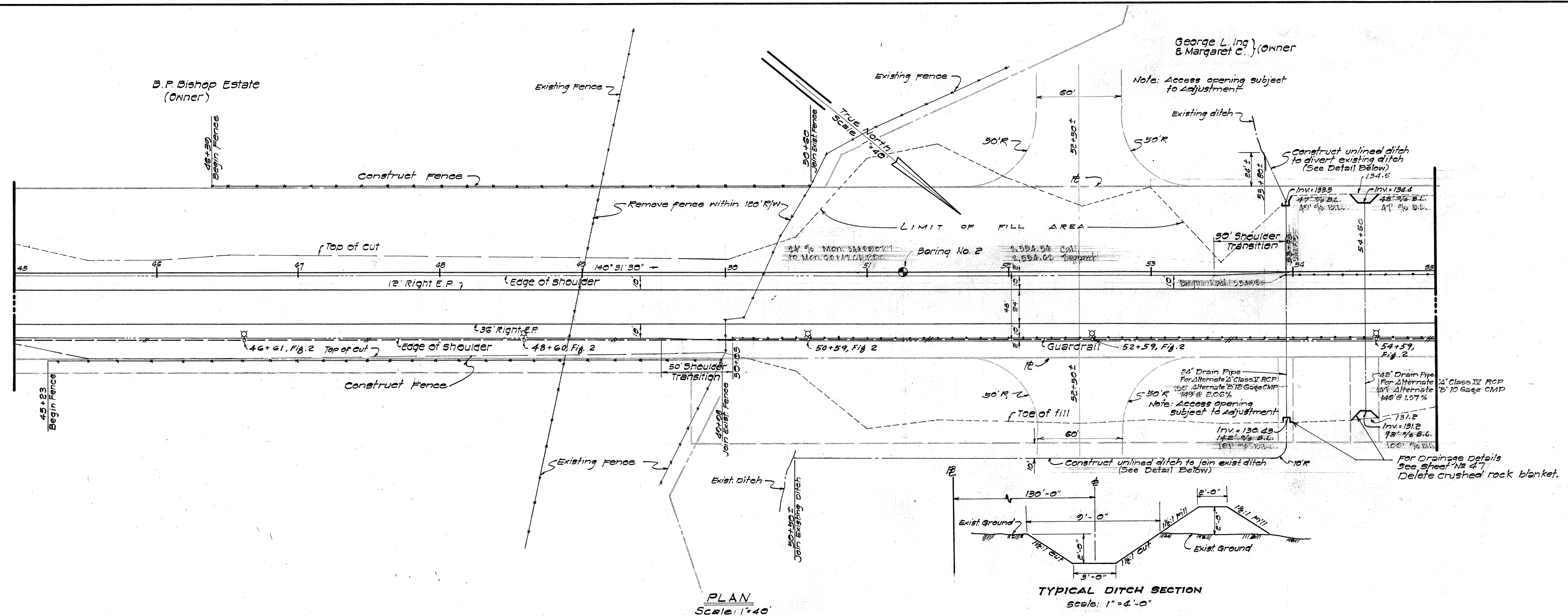
CHIEF ENGINEER: *George K. Hong* 8/24/62
DIRECTOR, DIVISION OF ENGINEERING

W. S. F. B. C. B.
CR. SEC. S. B. S. B.
W. M. BY: F. W. BY: S. BY:

APPROVED: *George K. Hong* 8/24/62
REG. ENGR. CERT. NO. 470-6

SHEET 1 OF 2 SHEETS

FILE	POCKET	FOLDER	NO.
12	9	3	7



PROPERTY OF DIVISION OF ENGINEERING

As Built

APPROVED: *William C. Harg* 8/19/62
DEPT. TRAFFIC ENGINEER, DEPT. OF TRAFFIC
C & C OF HONOLULU

JOB NO. 12-63

REVISION	DATE	DESCRIPTION	MADE BY	APPROVED
B-24-63	24th Drain Pipe	R.M. Y.A.		
G-27-63	Boring Data	R.M. Y.A.		

COMMUNITY PLANNING INCORPORATED
CIVIL ENGINEERS - SURVEYORS - CONSULTANT PLANNERS

DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU
DIVISION OF ENGINEERING
IMPROVEMENT DISTRICT NO. 162
KAHALUU CUTOFF ROAD
KANEHOE, HEEIA, AHUIMANU & KAHALUU, KOOLAUPOKO, OAHU
STA 45+00 TO STA 55+00
PLAN & PROFILE

ENGINEER: *M.H.I.*
DRAFTSMAN: *L.A.*
SCALE: *AS SHOWN*
APPROVED: *George L. Ing*
CHIEF ENGINEER: *George L. Ing*

DATE: 8-1-62
CHECKED BY: *STF*
TRACER: *E.A.*
APPROVED: *George L. Ing*
DIRECTOR, DIVISION OF ENGINEERING

W.S. PROFILE C.B.
C.R. SEC. F.B. S.B.
W.H. BY: F.W. BY: S. BY:

APPROVED: *George L. Ing*
REG. ENGR. CERT. NO. 4702

FILE 12 POCKET 9 FOLDER 3 NO. 9

SHEET 2 OF 62 SHEETS

George L. Ing & Margaret C. (Owner)

Note: Access opening subject to adjustment

B.P. Bishop Estate (Owner)

42" Drain Pipe For Alternate B12 Gate CMP 148' @ 1.57%

For Drainage Details See Sheet No. 47 Delete crushed rock blanket.

CLARENCE SHAK, ELECTRICAL ENGINEER, HAWAII REGISTRATION NO. 759

George L. Ing (Owner)
E. Margaret C. (Owner)

B. P. Bishop Estate
(Owner)

pig pen

True North
Scale 1" = 40'

37+80.1 Haiku Rd.
See Sheet No. 12
for Access Road

Existing
Drop C (4x8)
Top 178.62
Inv. 175.61

Edge of pavement
Return Data
Δ = 89° 02' 56"
P = 44° 32' 58"
T = 40° 00' 00"
C = 70.15
L = 77.75

Existing
Side open C.B. (5x5)
Top 177.33 Wood cover
Inv. 175.17

Provide smooth riding
connection to exist
pavement. Approx. 10 S.Y.

Edge of pavement
Return Data
Δ = 89° 00' 34"
P = 44° 30' 17"
T = 40° 00' 00"
C = 70.10
L = 77.68

HAIKU ROAD
TYPICAL SECTION
Scale: 1/2" = 1' 0"

B. P. Bishop Estate
(Owner)

Elev. top 18" pipe
= 157.10
End 18" conc. drain pipe
No headwall
Inv. = 154.66

C&C St. Mon.

Boring No. 3

NOTE: Army Cable to be lowered
as required by US Army.
All work on Army Cable is
to be done and paid for
by the US Army.
Coordinate all work with
U.S. Army Signal Corps

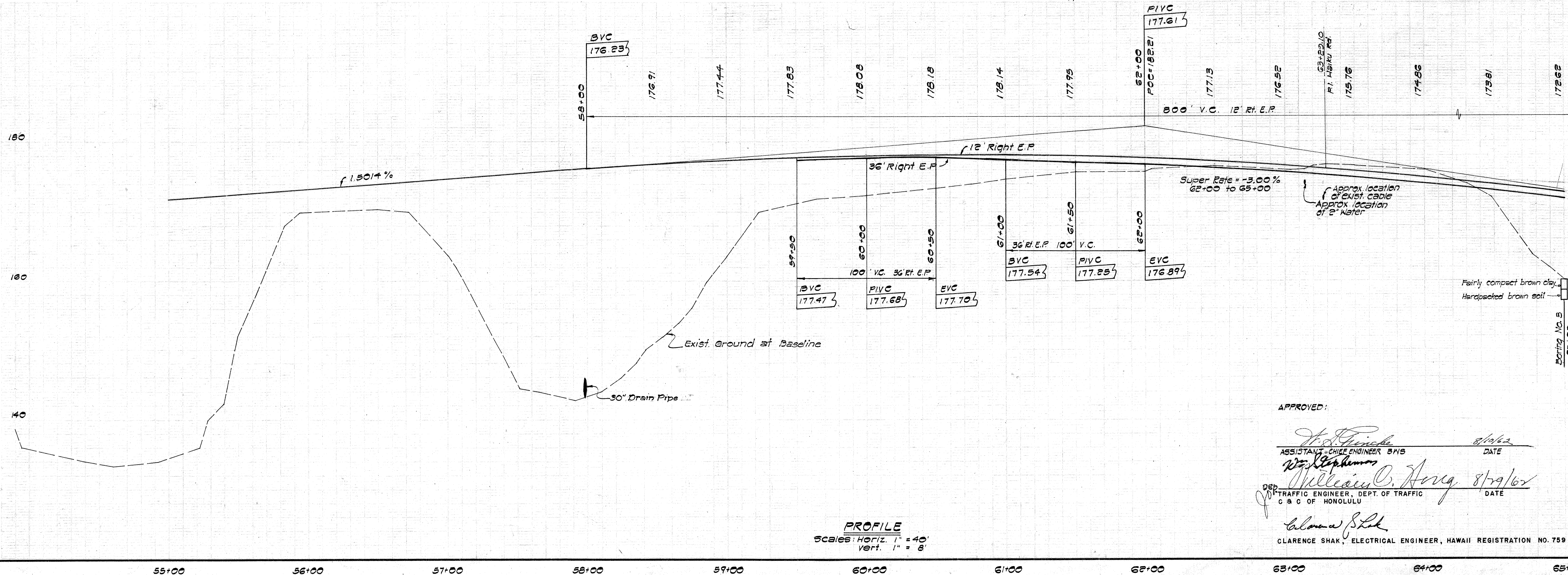
LEGEND
+ Stop sign (R-1) at street name sign

PLAN
Scale: 1" = 40'

Edge of pavement
Return Data
Δ = 102° 44' 16"
P = 51° 22' 08"
T = 50° 00' 00"
C = 78.12
L = 89.66

Edge of pavement
Return Data
Δ = 81° 50' 38"
P = 40° 40' 06"
T = 40° 00' 00"
C = 65.18
L = 70.99

Curve Data
Δ = 81° 50' 38"
P = 40° 40' 06"
T = 40° 00' 00"
C = 65.18
L = 70.99



PROFILE
Scale: Horiz. 1" = 40'
Vert. 1" = 8'

APPROVED:

Clarence Shak, Electrical Engineer, Hawaii Registration No. 759

PROPERTY OF DIVISION OF ENGINEERING

JOB NO. 12-63

REVISION DATE	DESCRIPTION	MADE BY	APPROVED
8-24-63	AM Drain Pipe	R.M. 113	W.S. 113
8-27-63	Boring Data	R.M. 113	W.S. 113

COMMUNITY PLANNING INCORPORATED
CIVIL ENGINEERS - SURVEYORS - CONSULTANT PLANNERS

DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU
DIVISION OF ENGINEERING
IMPROVEMENT DISTRICT NO. 162
KAHALU CUTOFF ROAD
KANEHOE, HELEA, AHUIMANU & KAHALU, KOOLAPOKO, OAHU
STA. 55+00 TO STA. 65+00
PLAN & PROFILE

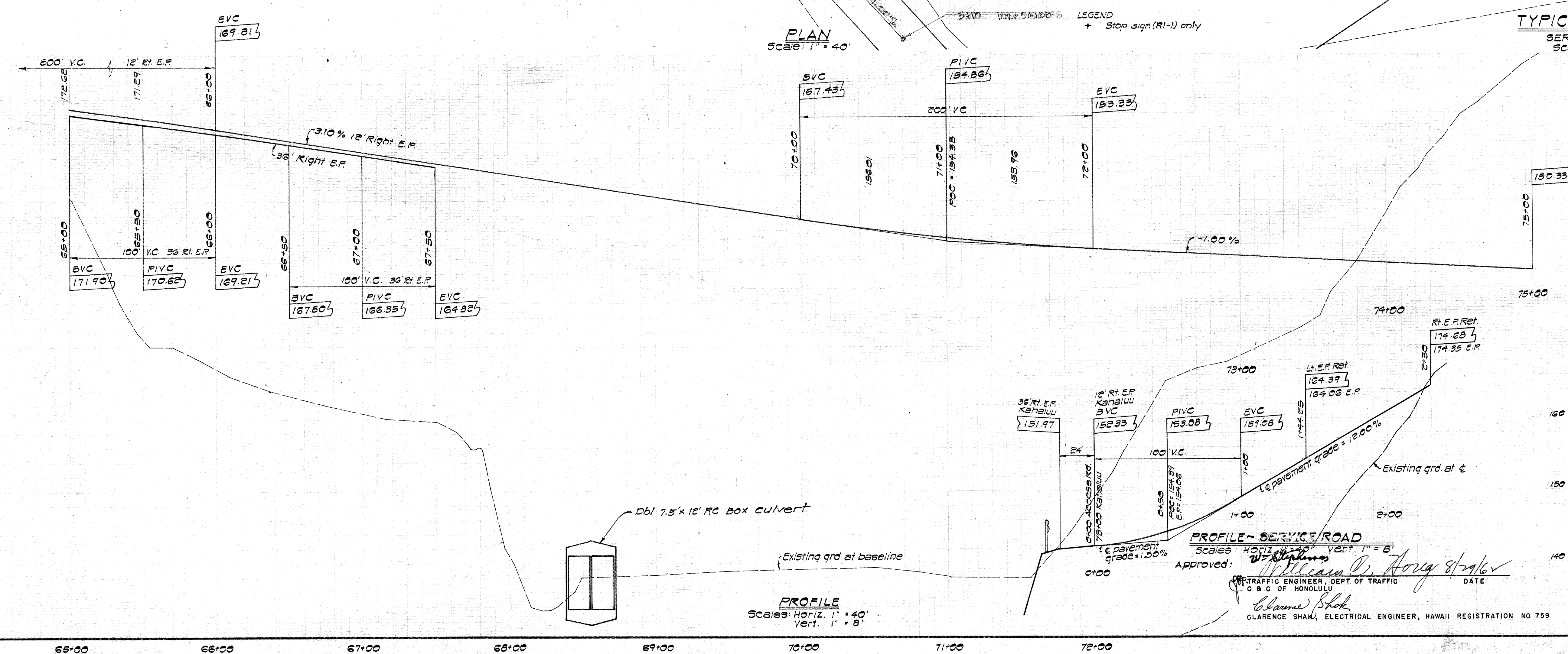
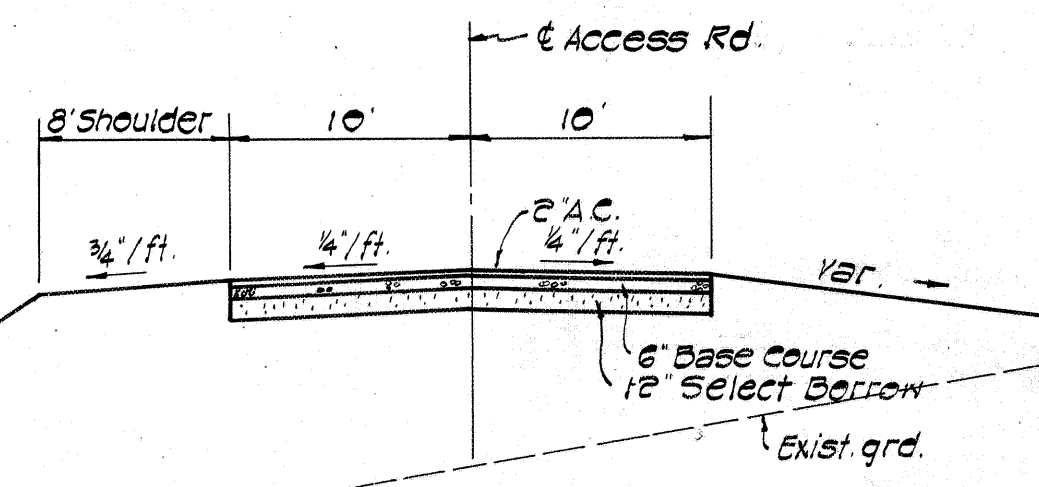
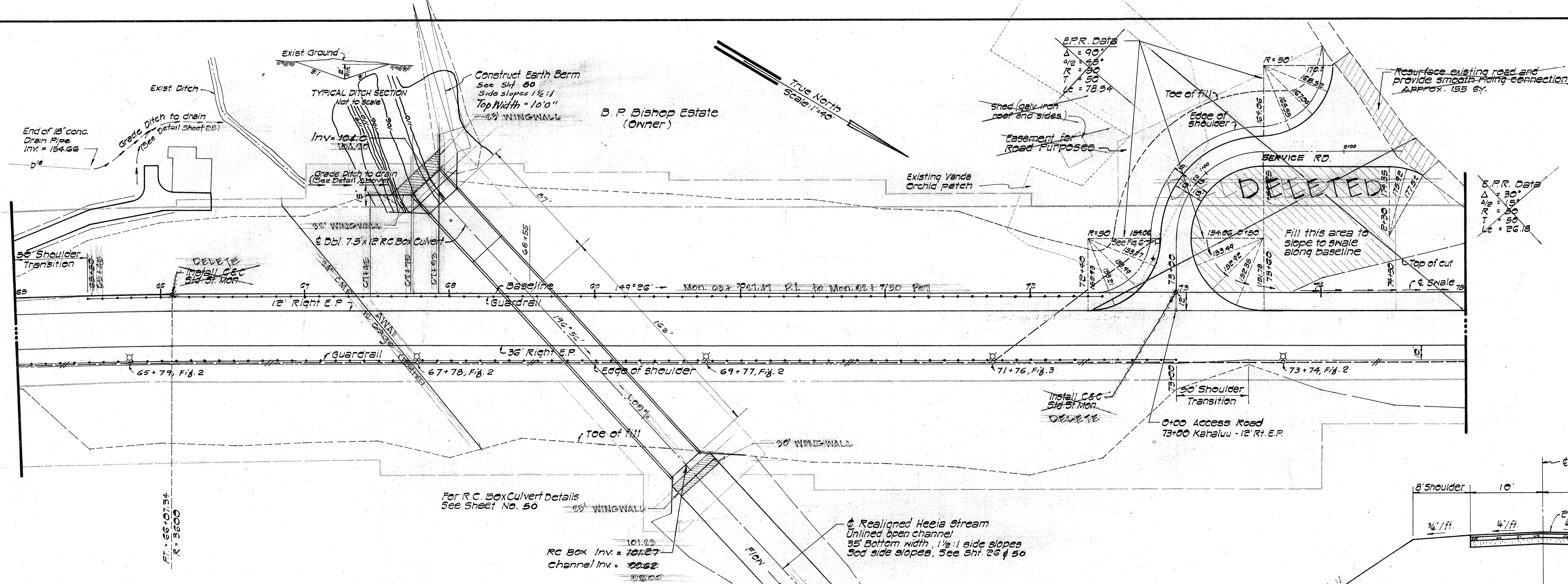
ENGINEER: M.H.I.
DRAFTSMAN: L.A.
SCALE: AS SHOWN
APPROVED: 8/24/63
DATE: 8/24/63
CHECKED BY: STP
TRACER: E.A.
APPROVED: 8/24/63
DATE: 8/24/63
CHIEF ENGINEER: [Signature]
AT. DIRECTOR, DIVISION OF ENGINEERING: [Signature]

W.S. 113
CR. SEC. 113
W.S. BY: 113

APPROVED: [Signature]
REG. ENGR. CERT. NO. 4704

FILE 12
POCKET 9
FOLDER 3
NO. 10

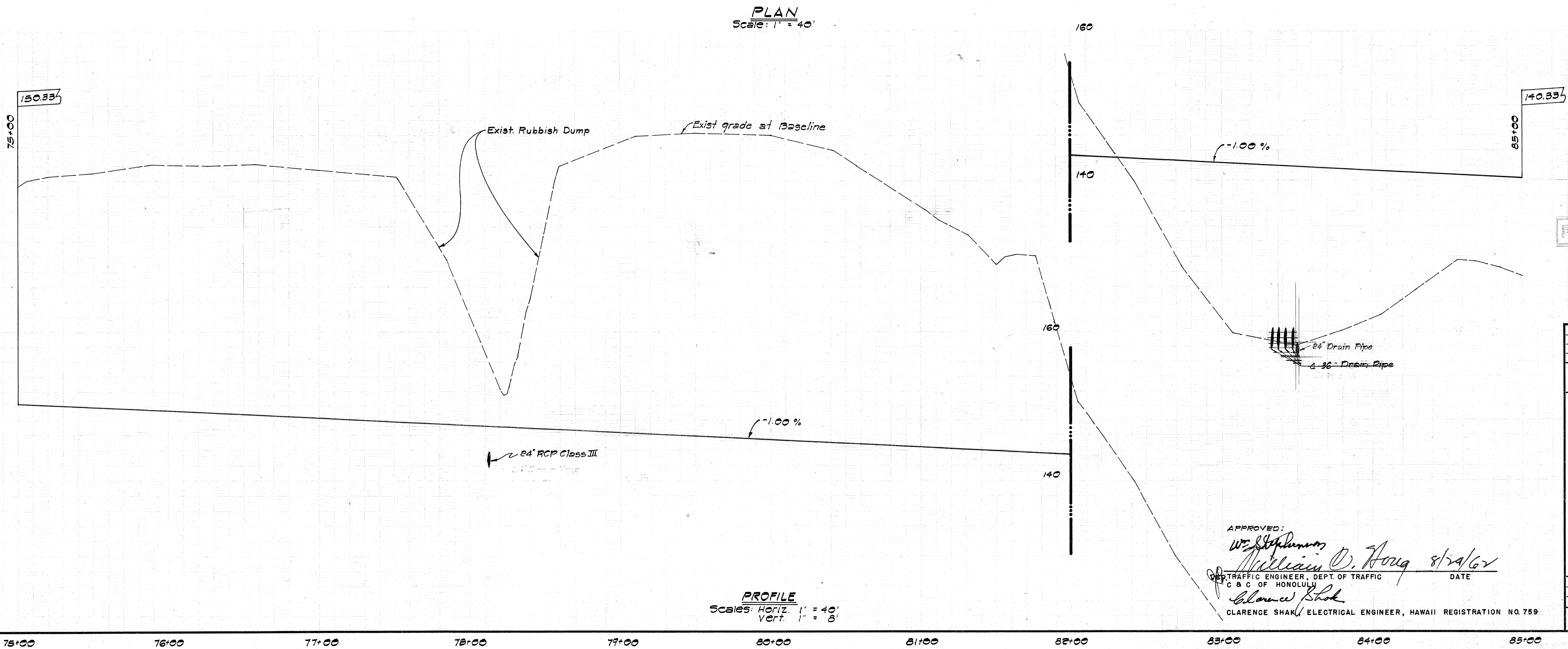
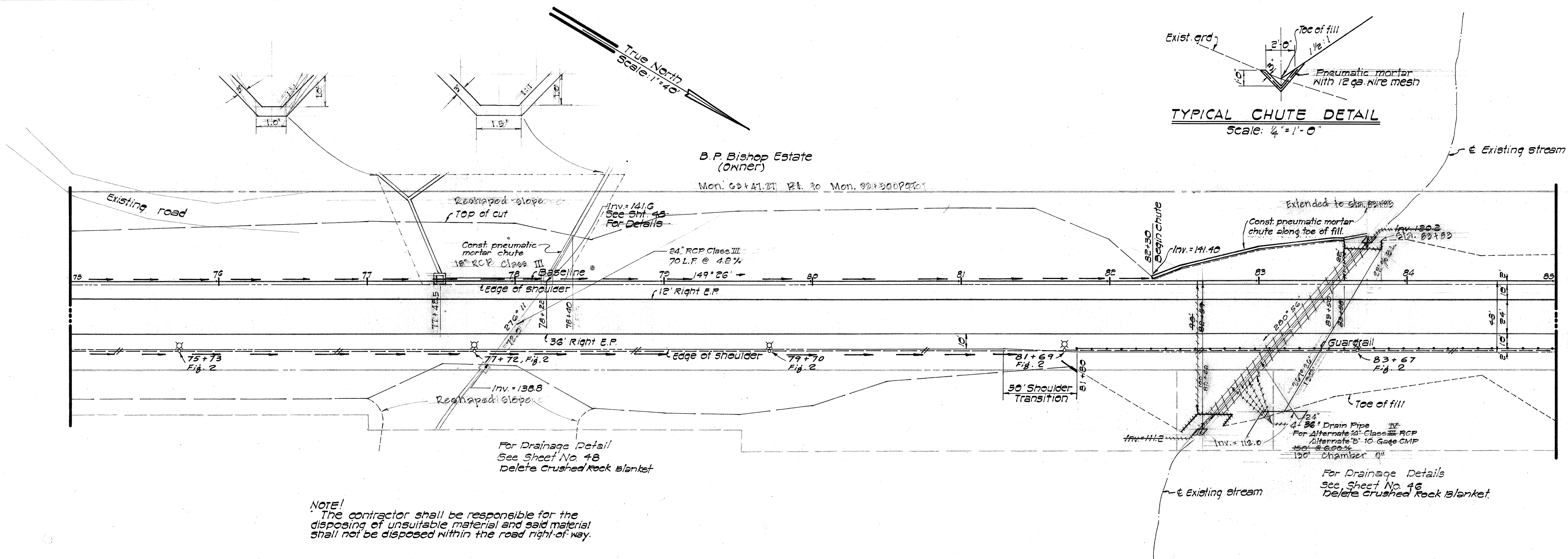
SHEET 10 OF 62 SHEETS



PROPERTY OF DIVISION OF ENGINEERING

JOB NO. 12-63

REVISION	DATE	DESCRIPTION	MADE BY	APPROVED
COMMUNITY PLANNING INCORPORATED CIVIL ENGINEERS - SURVEYORS - CONSULTANT PLANNERS DEPARTMENT OF PUBLIC WORKS CITY AND COUNTY OF HONOLULU DIVISION OF ENGINEERING IMPROVEMENT DISTRICT NO. 162 KAHALUU CUTOFF ROAD KANEHE, HEEIA, AHUIMANU & KAHALUU, KOOLAUPOKO, OAHU STA. 65+00 TO STA. 75+00 PLAN & PROFILE ENGINEER: <i>M.H.I.</i> DRAFTSMAN: <i>L.A.</i> SCALE: <i>AS SHOWN</i> APPROVED: <i>[Signature]</i> CHIEF ENGINEER: <i>[Signature]</i> DATE FINAL REPORT: 6-27-63 DATE: 5-1-63 CHECKED BY: <i>STF</i> TRACER: <i>F.A.</i> APPROVED: <i>[Signature]</i> AT DIRECTOR, DIVISION OF ENGINEERING: <i>[Signature]</i> W.S.: <i>[Blank]</i> PROFILE: <i>[Blank]</i> C.B.: <i>[Blank]</i> C.R. SEC.: <i>[Blank]</i> F.B.: <i>[Blank]</i> S.B.: <i>[Blank]</i> W.N. BY: <i>[Blank]</i> F.W. BY: <i>[Blank]</i> S. BY: <i>[Blank]</i> APPROVED: <i>[Signature]</i> REG. ENGR. CERT. NO. 476-10				



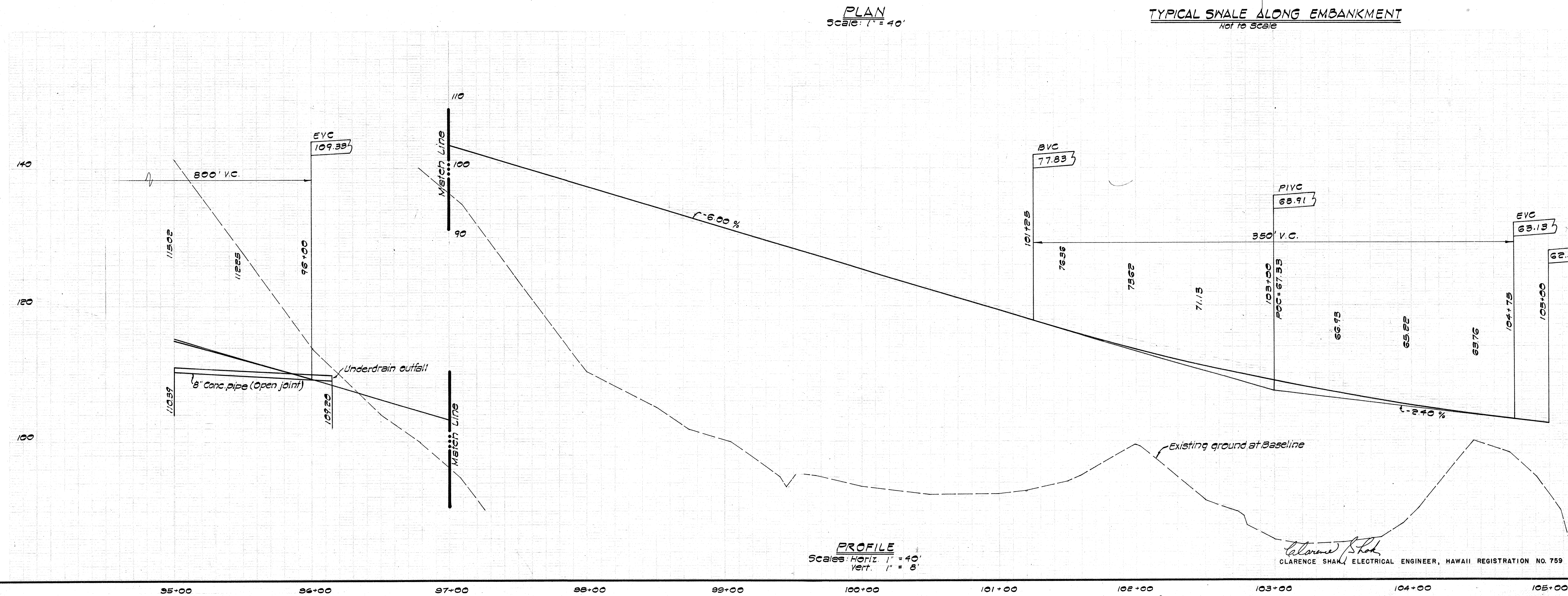
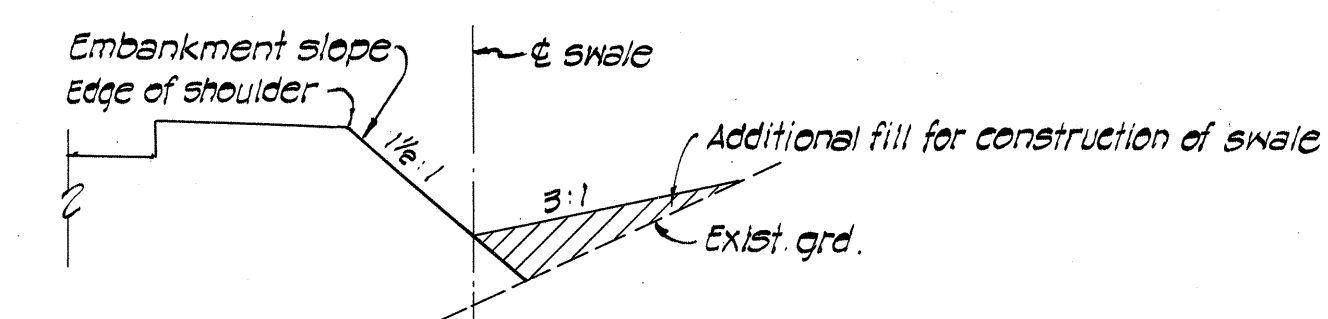
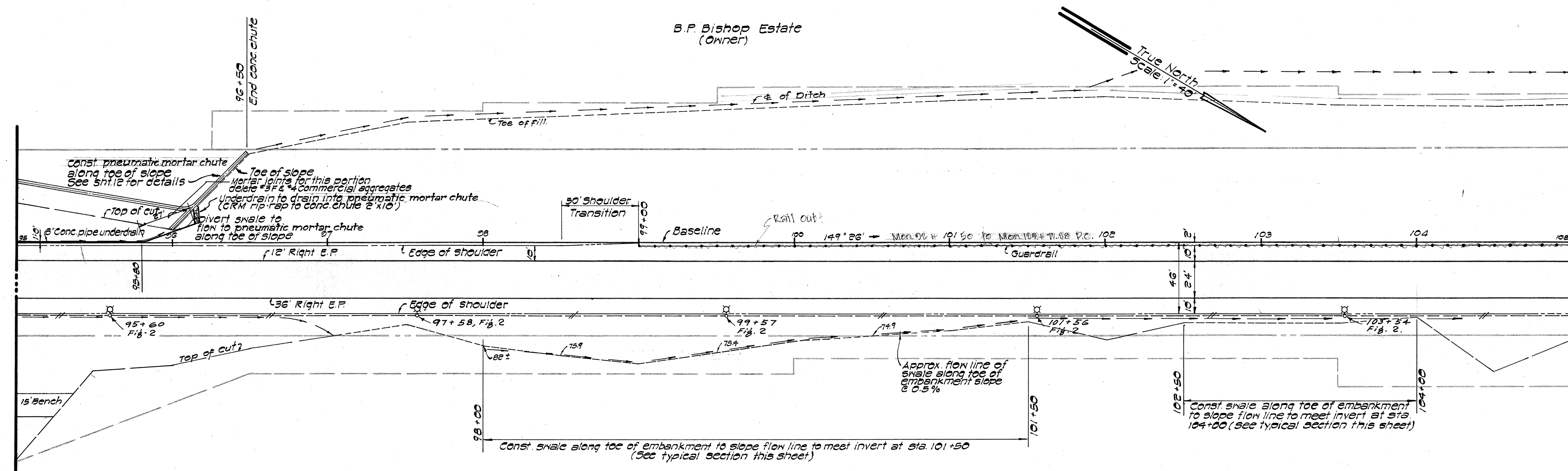
PROPERTY OF DIVISION OF ENGINEERING

As Built

JOB NO. 12-63

6-26-63	4-36" Drain Pipe	R.M. 12	12-63
REVISION DATE	DESCRIPTION	MADE BY	APPROVED
COMMUNITY PLANNING INCORPORATED			
CIVIL ENGINEERS - SURVEYORS - CONSULTANT PLANNERS			
DEPARTMENT OF PUBLIC WORKS			
CITY AND COUNTY OF HONOLULU			
DIVISION OF ENGINEERING			
IMPROVEMENT DISTRICT NO. 152			
KAHALU CUTOFF ROAD			
KANEOHE, HEEHA, AHIHIMANU & KAHALU, KOOLAUPOKO, OAHU			
STA. 75+00 TO STA. 85+00			
PLAN & PROFILE			
ENGINEER	M.H.I.	DATE/FINAL REPORT	6-27-63
DRAFTSMAN	L.A.	DATE	8-1-63
SCALE	AS SHOWN	CHECKED BY	STF
APPROVED	Tracer	TRACER	E.A.
CHIEF ENGINEER	George H. H. H.	APPROVED	9/28/62
W.S.	PROFILE	C.B.	
C.B. SEC.	F.B.	S.B.	
W.M. BY:	F.W. BY:	S. BY:	
APPROVED			
George H. H. H.			
FILE	FOCKET	FOLDER	NO.
12	2	3	12

SHEET 12 OF 62 SHEETS



PROPERTY OF DIVISION OF ENGINEERING

"As Built"

APPROVED

W. S. S. S.

William C. Hong 8/29/62

55 DEPT. TRAFFIC ENGINEER, DEPT. OF TRAFFIC
C & C OF HONOLULU

DATE

JOB NO. 12-63

REVISION DATE

DESCRIPTION

MADE BY

APPROVED

COMMUNITY PLANNING INCORPORATED

CIVIL ENGINEERS - SURVEYORS - CONSULTANT PLANNERS

DEPARTMENT OF PUBLIC WORKS

CITY AND COUNTY OF HONOLULU

DIVISION OF ENGINEERING

IMPROVEMENT DISTRICT NO. 162

KAHALUU CUTOFF ROAD

KANEHOE, KEEIA, AHUIMANU & KAHALUU, KOOLAUPOKO, OAHU

STA. 95+00 TO STA. 105+00

PLAN & PROFILE

DATE FINAL REPORT 8-27-63

ENGINEER M.H.I.

DATE 8-1-63

DRAFTSMAN L.A.

CHECKED BY STF

SCALE AS SHOWN

TRACER R.A.

APPROVED Wm. S. S.

APPROVED 7/26/62

CHIEF ENGINEER Wm. S. S.

ASST. DIRECTOR, DIVISION OF ENGINEERING [Signature]

W. S.

PROFILE

C. S.

CR. SEC.

F. D.

S. B.

W. N. BY:

F. W. BY:

S. BY:

APPROVED

George Houghtaling

REG. ENGR. CERT. NO. 3704

FILE

POCKET

FOLDER

NO.

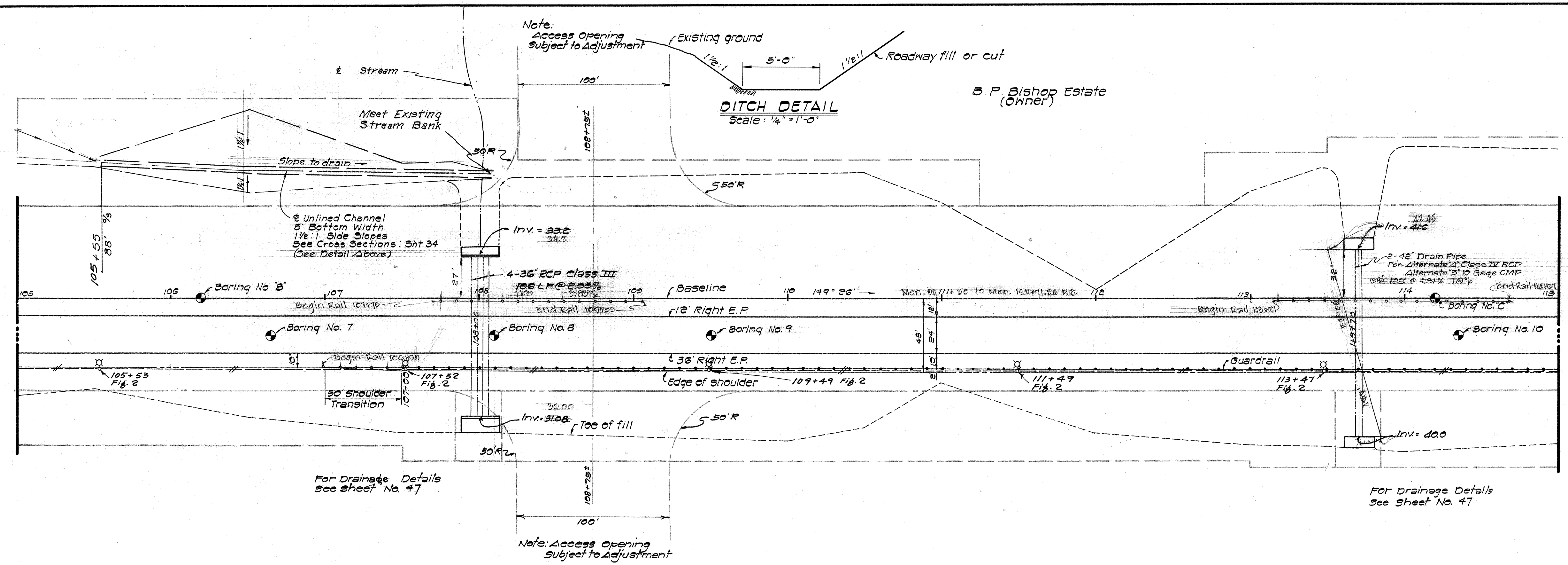
12

3

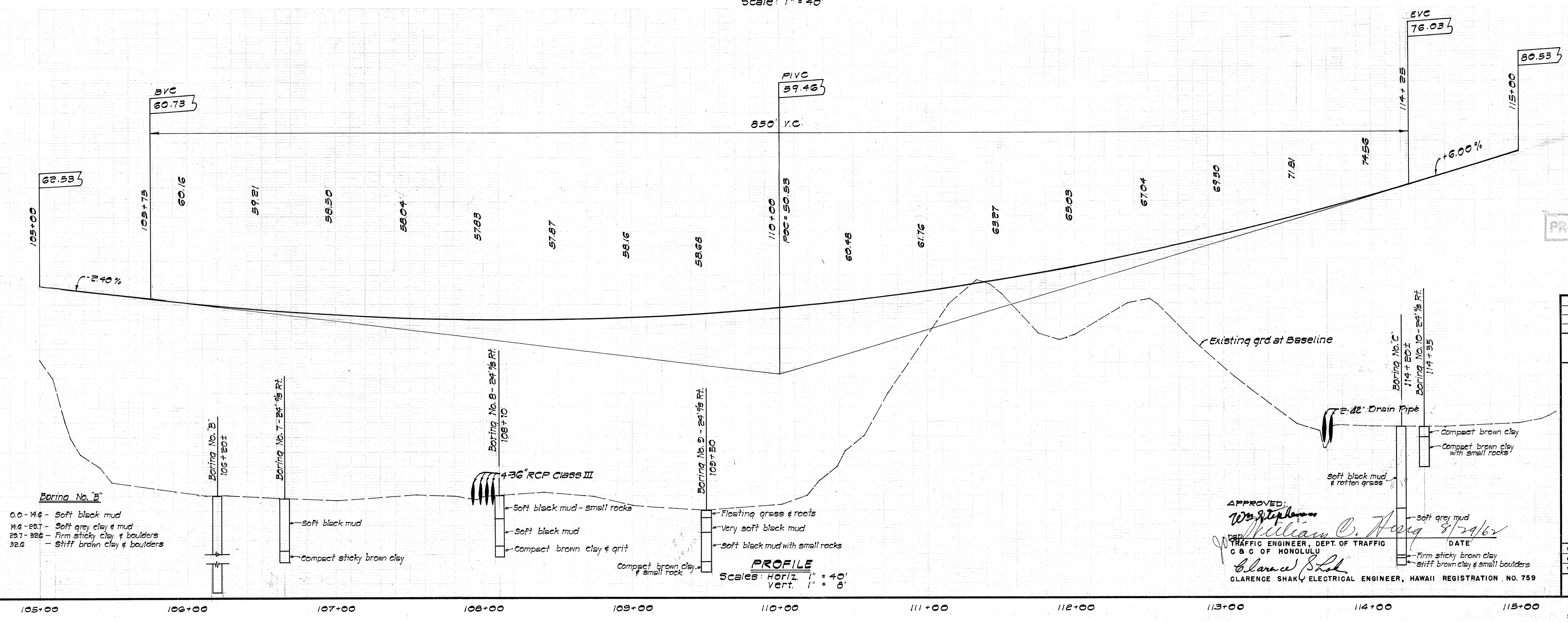
3

14

SHEET 14 OF 63 SHEETS



PLAN
Scale: 1" = 40'



PROPERTY OF DIVISION OF ENGINEERING

As Built
JOB NO. 12-63

5-24-63	Shore Ditch to Drain	R.M. 70	W.C.H.
6-27-63	Boring Data	R.M. 70	W.C.H.
REVISION DATE	DESCRIPTION	MADE BY	APPROVED
COMMUNITY PLANNING INCORPORATED			
CIVIL ENGINEERS - SURVEYORS - CONSULTANT PLANNERS			
DEPARTMENT OF PUBLIC WORKS			
CITY AND COUNTY OF HONOLULU			
DIVISION OF ENGINEERING			
IMPROVEMENT DISTRICT NO. 162			
KAHALU CUTOFF ROAD			
KANEHE, HEEIA, AHUMANU & KAHALU, KOOLAUPOKO, OAHU			
STA. 103+00 TO STA. 115+00			
PLAN & PROFILE			
ENGINEER	M.H.I.	DATE	8-1-62
DRAFTSMAN	L.A.	CHECKED BY	STF
SCALE	AS SHOWN	TRACER	R.A.
APPROVED	W.C.H.	APPROVED	8/29/62
CHIEF ENGINEER	William C. Hargis	AT. DIRECTOR, DIVISION OF ENGINEERING	8/29/62
W.S.	PROFILE	C.B.	
C.R. SEC.	F.B.	S.B.	
W.M. BY:	F.W. BY:	S. BY:	
APPROVED			
REG. ENGR. CERT. NO. 4704			
FILE	POCKET	FOLDER	NO.
12	2	3	15

B.P. Bishop Estate
(Owner)

Ahuimanu Investment Company
(Owner)

*Materials furnished by Contractor
and installed by B.W.S.

Note for Horiz.-Vert. Bends
Horiz. Thrust to be braced against
solid bank by reinf. conc. jacket

CURVE DATA
Δ: 20°26'
1/2: 14'43"
R: 2000.00
C: 10/16.12
T: 525.31
L: 1027.42

Install C & C
Std. St. Mon.

Sta. 55+70± to 55+80±
12± C.F. Grouted Riprap over trench (See Detail
10± C.F. Rain. Conc. Jacket (See Detail on Sht. 420)

1-30" 56" Bend (H&V)
1-30" 38" Bend (V)
One end-pipe end
Connect to exist 30" (See Detail)
1-30" 45" Bend (Pipe ends) (4)
2-30" Butt straps w/4 Coupling
1-30" Cap w/2 1/2 I.P.T.
1-2 1/2" Cleanout
Temporary for
Testing

Butt Strap
Conc. Blk.
Connect to exist Main
Butt Strap
Exist 34" Bend (V)
30"-45" Bend (H)
30"-50" Bend (H&V)
(See Note Above)

CONNECTION DETAIL

PLAN
Scale: 1"=40'

DETAIL - GROUTED RIPRAP
(NO SCALE)

APPROVED:
W. J. [Signature]
ASST. CHIEF ENGINEER, B.W.S.
W. [Signature]
TRAFFIC ENGINEER, DEPT OF TRAFFIC
DATE 7/14/62

JOB NO. 12-63

5-24-63	Bench Drain	P.M. [Signature]	7/14/62
REVISION DATE	DESCRIPTION	MADE BY	APPROVED

COMMUNITY PLANNING INCORPORATED
CIVIL ENGINEERS - SURVEYORS - CONSULTANT PLANNERS

DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU
DIVISION OF ENGINEERING
IMPROVEMENT DISTRICT NO. 102
KAHALU CUTOFF ROAD
KANEHE, HEEIA, AHUIMANU & KAHALU, KOOLAUPOKO, OAHU
STA 125+00 TO STA 135+00
PLAN & PROFILE

ENGINEER M.H.I.
DRAFTSMAN L.A.
SCALE AS SHOWN
APPROVED [Signature]
CHIEF ENGINEER

DATE: FINAL REPORT 6-27-63
DATE 8-1-63
CHECKED BY STF
TRACER K.A.
APPROVED [Signature]
DIRECTOR, DIVISION OF ENGINEERING

W.S. PROFILE
C.B. C.B.
CR. SEC. F.B. S.B.
W.B. BY: F.W. BY: S.BY:

APPROVED [Signature]
LEG. ENGR. CERT. NO. 470-E

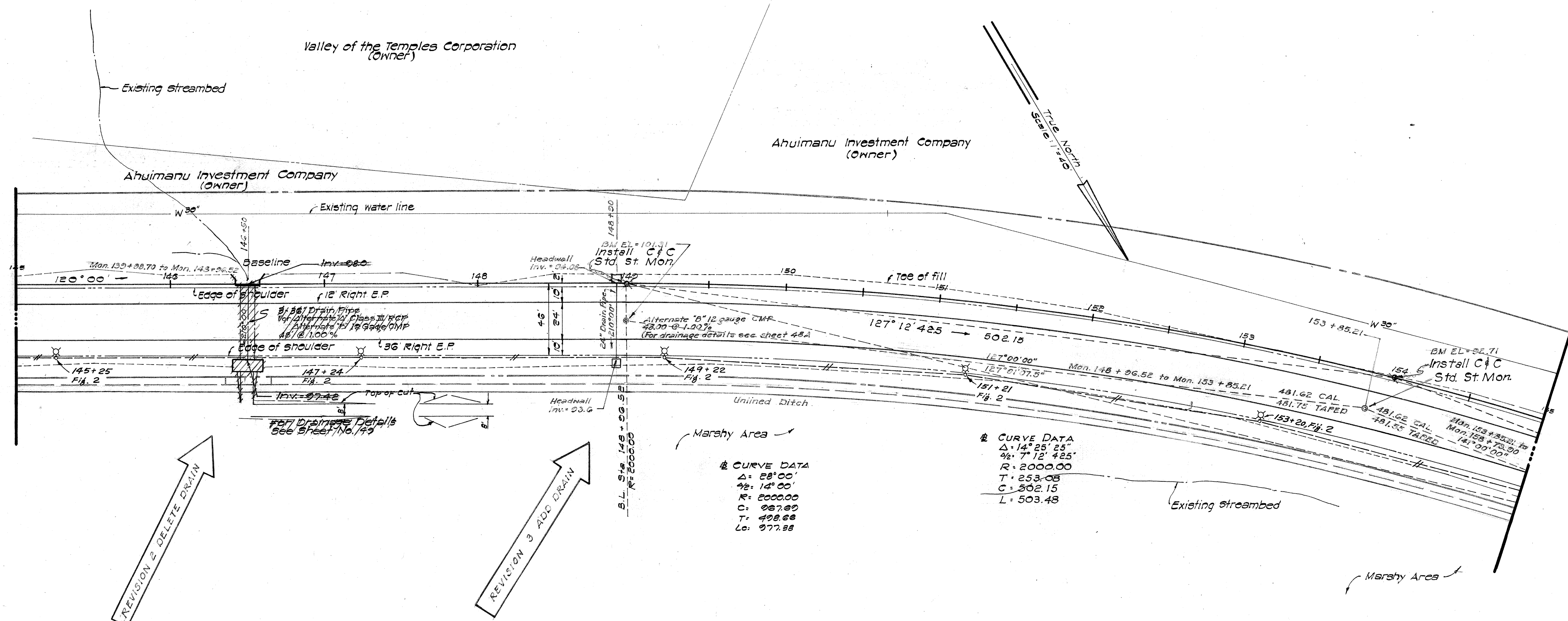
PROPERTY OF DIVISION OF ENGINEERING

PROFILES
Scale: Horiz. 1"=40'
Vert. 1"=8'

CLARENCE SHAK, ELECTRICAL ENGINEER, HAWAII REGISTRATION NO. 759

AS BUILT J.H.

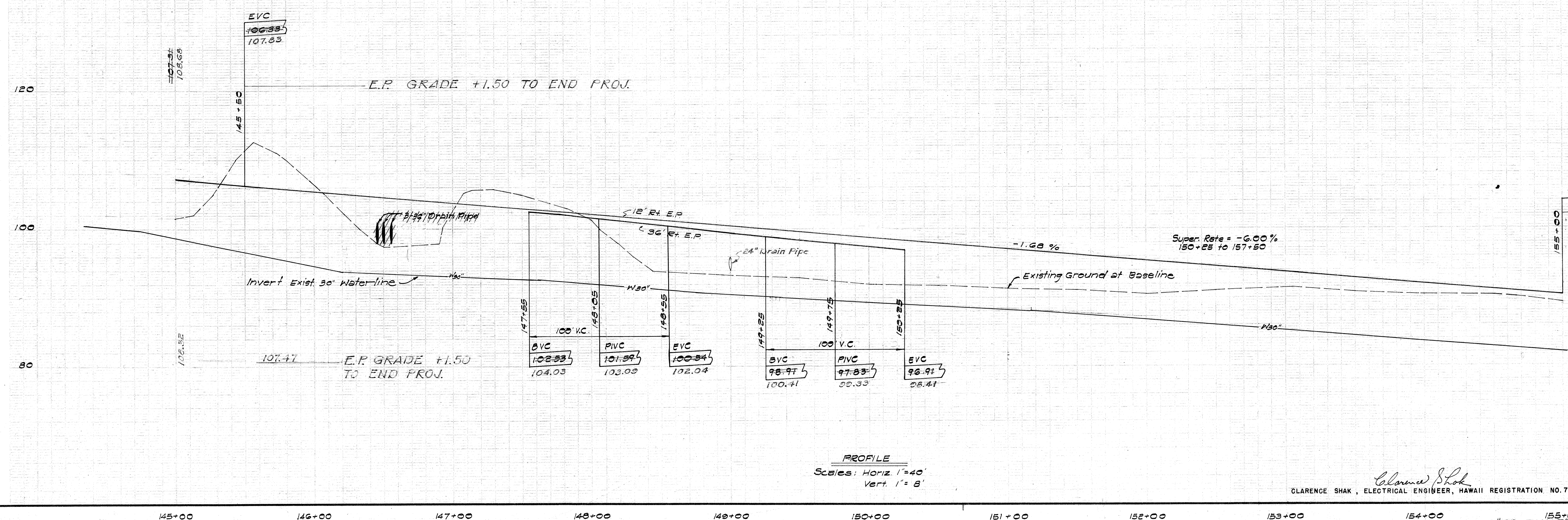
SHEET 17 OF 62 SHEETS



CURVE DATA
 Δ: 28°00'
 Δ: 14°00'
 R: 2000.00
 C: 227.60
 T: 428.68
 L: 977.88

CURVE DATA
 Δ: 14°25'25"
 Δ: 7°12'425"
 R: 2000.00
 T: 253.05
 C: 502.15
 L: 503.48

PLAN
Scale: 1"=40'



PROFILE
Scales: Horiz. 1"=40'
Vert. 1"=8'

APPROVED:

W. J. Thompson 8/1/62
ASSIST. CHIEF ENGINEER BWS

W. J. Thompson
TRAFFIC ENGINEER, DEPT. OF TRAFFIC
C & C OF HONOLULU

DATE 8/24/62

PROPERTY OF DIVISION OF ENGINEERING
JOB NO. 12-63

REVISION	DATE	DESCRIPTION	MADE BY	APPROVED
1	5-23-63	Alt. to Drain Pipe	R.M. J.	W.J.T.

COMMUNITY PLANNING INCORPORATED
CIVIL ENGINEERS - SURVEYORS - CONSULTANT PLANNERS

DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU
DIVISION OF ENGINEERING
IMPROVEMENT DISTRICT NO. 162
KAHALU CUTOFF ROAD
KANEHOE, WEEIA, AHUIMANU & KAHALU, KOOLAUPOKO, OAHU
STA. 145+00 TO STA. 155+00
PLAN & PROFILE

ENGINEER M.H.I.
DRAFTSMAN L.A.
SCALE AS SHOWN
APPROVED *W. J. Thompson*
CHIEF ENGINEER

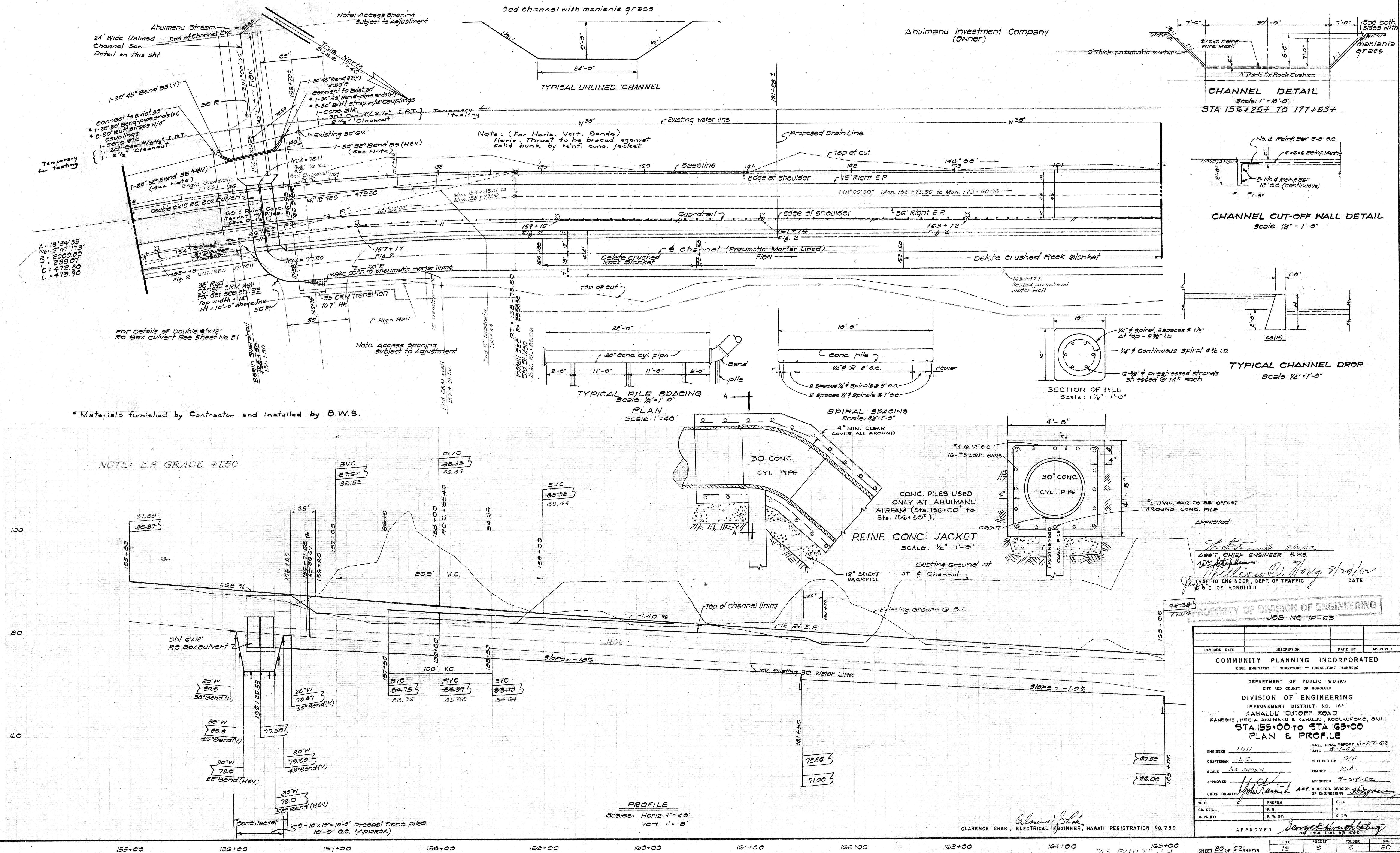
DATE: FINAL REPORT 6-27-63
DATE 8-1-62
CHECKED BY STP
TRACER E.A.
APPROVED *W. J. Thompson*
CHIEF ENGINEER

W. S. PROFILE C. B.
CR. SEC. F. B. S. B.
W. M. BY: F. W. BY: S. BY:

APPROVED *George K. Houghtaling*
S. ENGR. CERT. NO. 102

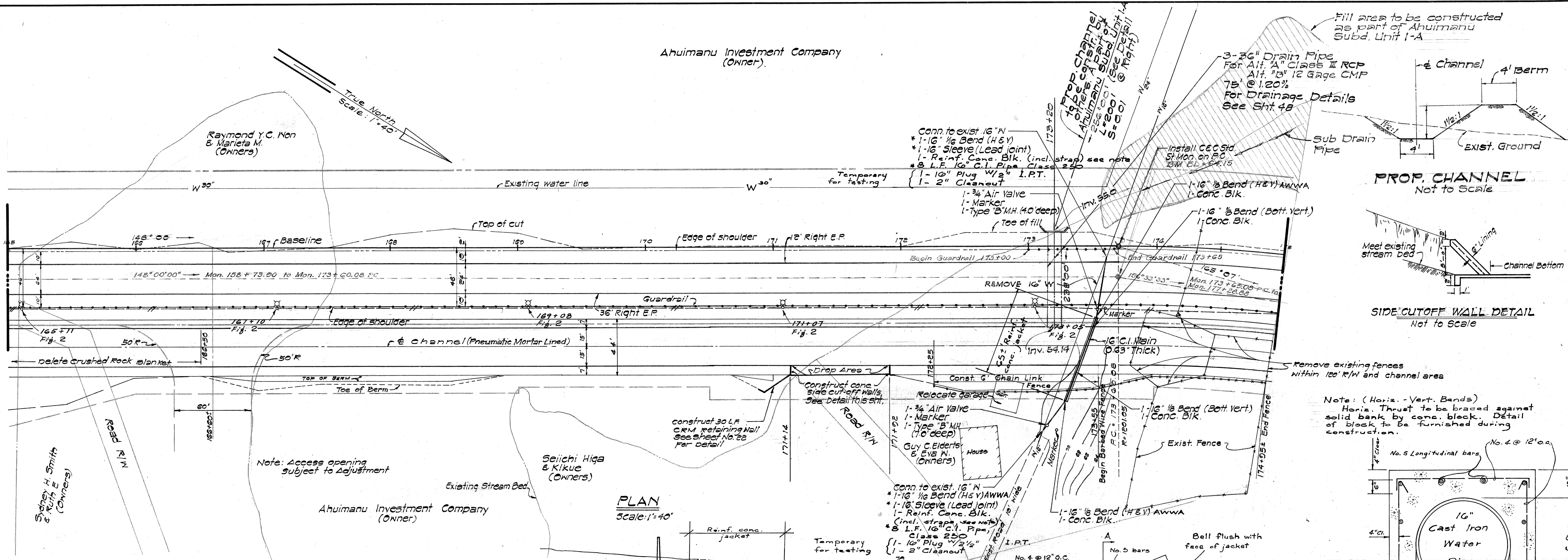
CLARENCE SHAK, ELECTRICAL ENGINEER, HAWAII REGISTRATION NO. 759

FILE 12 POCKET 3 FOLDER 3 NO. 12



Ahuimanu Investment Company
(Owner)

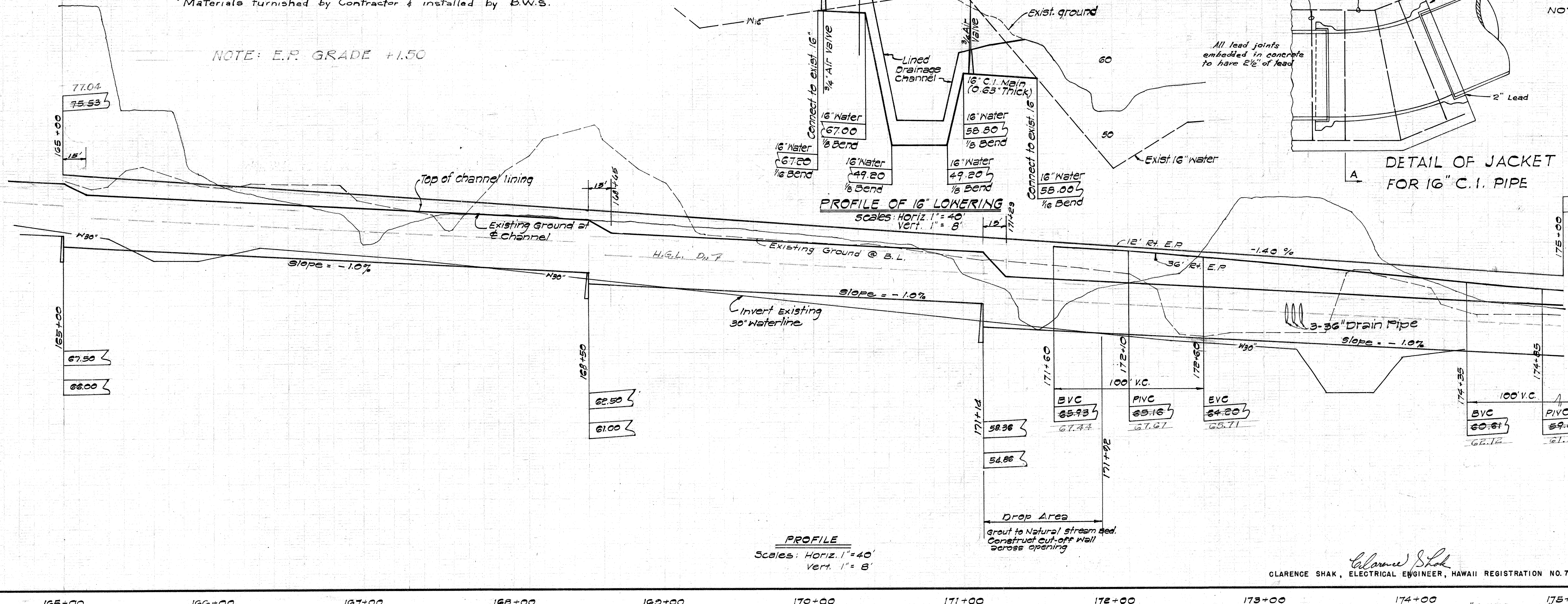
Raymond Y.C. Non
& Marieta M.
(Owners)



PLAN
Scale: 1"=40'

* Materials furnished by Contractor & installed by B.W.S.

NOTE: E.P. GRADE +1.50

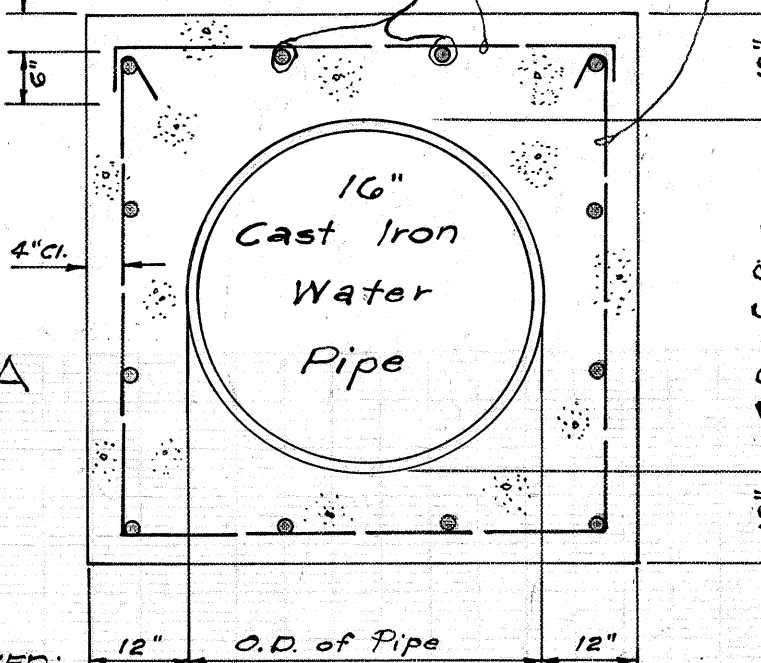


PROFILE
Scale: 1"=40'
Vert. 1"=8'

PROP. CHANNEL
Not to Scale

SIDE CUTOFF WALL DETAIL
Not to Scale

Note: (Horiz. - Vert. Bands)
Horiz. Thrust to be braced against
solid bank by conc. block. Detail
of block to be furnished during
construction.



SECTION A-A
NOT TO SCALE

DETAIL OF JACKET
FOR 16" C.I. PIPE

APPROVED: *[Signature]*
ASS'T CHIEF ENGINEER B.W.S.
DATE: 8/29/62
TRAFFIC ENGINEER, DEPT OF TRAFFIC
C & C OF HONOLULU

PROPERTY OF DIVISION OF ENGINEERING

JOB NO. 12-63			
11-3-64	100' 3-36" PIPE @ 173+30	L.F.F.	4/1/64
REVISION DATE	DESCRIPTION	MADE BY	APPROVED
COMMUNITY PLANNING INCORPORATED			
CIVIL ENGINEERS - SURVEYORS - CONSULTANT PLANNERS			
DEPARTMENT OF PUBLIC WORKS			
CITY AND COUNTY OF HONOLULU			
DIVISION OF ENGINEERING			
IMPROVEMENT DISTRICT NO. 182			
KAHALU CUTOFF ROAD			
KANEHE, HEEIA, AHUIMANU & KAHALU, KOOLAPOKOA OAHU			
STA. 165+00 TO STA. 175+00			
PLAN & PROFILE			
ENGINEER	M.H.H.	DATE FINAL REPORT	6-27-63
DRAFTSMAN	L.C.	DATE	8-1-62
SCALE	AS SHOWN	CHECKED BY	STF
APPROVED	<i>[Signature]</i>	TRACER	F.A.
CHIEF ENGINEER	<i>[Signature]</i>	APPROVED	9-28-62
452, DIRECTOR, DIVISION OF ENGINEERING	<i>[Signature]</i>		
W.S. BY	PROFILE	C.B. BY	
C.B. SEC.	F.B. BY	S.B. BY	
W.M. BY	F.W. BY	S.W. BY	
APPROVED: <i>[Signature]</i>			
CLARENCE SHAK, ELECTRICAL ENGINEER, HAWAII REGISTRATION NO. 759			
FILE	POCKET	FOLDER	NO.
12	2	3	21

"AS BUILT" J.H.

SHEET 21 OF 22 SHEETS

@ CURVE DATA
 Δ = 34° 14'
 Δc = 17° 07'
 R = 1201.25
 C = 706.98
 T = 382.87
 Lc = 717.61

Ahuimanu Investment Company
(Owner)

Note: Access opening
Subject to Adjustment
See General Layout sheet No. 2
for connection to Ahuimanu P.

True North
Scale: 1" = 40'

Fill area to be constructed
as part of Ahuimanu
Subd. Unit I-A.

Sub Drain
Pipe

Ralph K.Y. Kam
& Mabel F.
(Owners)

For Drainage Details
See sheet No. 4B

Relocated to 173+20
See Revised Sheet

175+04 Fig. 2

177+03 Fig. 2

179+01 Fig. 2

181+00 Fig. 2

182+98 Fig. 2

184+97 Fig. 2

186+45 Fig. 5

188+00

190+00

192+00

194+00

196+00

198+00

200+00

202+00

204+00

206+00

208+00

210+00

212+00

214+00

216+00

218+00

220+00

222+00

224+00

226+00

228+00

230+00

232+00

234+00

236+00

238+00

240+00

242+00

244+00

Construct 65 LF
C.R.M. Retaining Wall

channel lining

Existing streambed

Construct lining to
follow bottom of
stream bed
(Crushed Rock Blanket Deleted)

Construct conc.
cut-off wall
See Sheet No. 20

End guardrail

Toe of fill

50' R

50' R

50' R

50' R

50' R

50' R

50' R

50' R

50' R

50' R

50' R

50' R

50' R

50' R

50' R

50' R

50' R

50' R

50' R

50' R

50' R

50' R

50' R

50' R

50' R

50' R

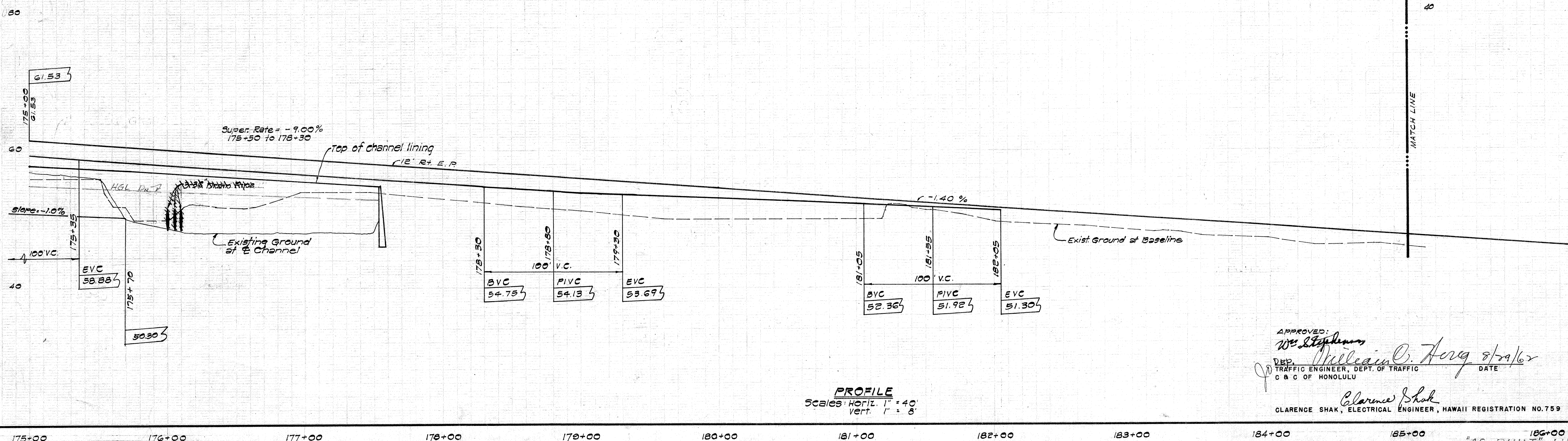
CRM WALL DETAIL
Scale: 1/4" = 1'-0"

PLAN
Scale: 1" = 40'

Dotted lines & larger
Dimensions Apply to
Wall @ Sta. 186+22.1
Top width = 14 in.

Note: Access opening
Subject to Adjustment

NOTE: E.P. GRADE +1.50



PROFILE
Scale: Horiz. 1" = 40'
Vert. 1" = 8'

APPROVED: *Clarence Shak*
 TRAFFIC ENGINEER, DEPT. OF TRAFFIC
 C & C OF HONOLULU
 DATE: 8/29/62
 CLARENCE SHAK, ELECTRICAL ENGINEER, HAWAII REGISTRATION NO. 7579

PROPERTY OF DIVISION OF ENGINEERING

JOB NO. 12-63

REVISION	DATE	DESCRIPTION	MADE BY	APPROVED
11-3-64		Deleted 3-36" pipe @ 178+00	L.F.R.	1/19/64

COMMUNITY PLANNING INCORPORATED
 CIVIL ENGINEERS - SURVEYORS - CONSULTANT PLANNERS
 DEPARTMENT OF PUBLIC WORKS
 CITY AND COUNTY OF HONOLULU
 DIVISION OF ENGINEERING
 IMPROVEMENT DISTRICT NO. 182
 KAHALUU CUTOFF ROAD
 KANEHE, WHEELA, AHUIMANU & KAHALUU, KOOLAPOKO, OAHU
 STA. 175+00 TO STA. 186+95.98
 PLAN & PROFILE

ENGINEER: MHI
 DRAFTSMAN: L.C.
 SCALE: AS SHOWN
 APPROVED: 7-28-62
 CHIEF ENGINEER: *Clarence Shak*
 ASSESSOR: DIVISION OF ENGINEERING

W. S.	PROFILE	C. B.
C. B. SEC.	F. B.	S. B.
W. M. BY:	F. W. BY:	S. BY:

APPROVED: *Clarence Shak*
 REG. ENGR. CERT. NO. 4374

FILE	POCKET	FOLDER	NO.
12	9	3	22

SHEET 22 OF 62 SHEETS

NOTES FOR CONSTRUCTION WITHIN THE STATE RIGHT OF WAY

1. The Contractor shall obtain a construction permit from the State Highway Maintenance Engineer at 721 Kalikoi Street prior to the commencement of work within the State Highway Right of Way.
2. Construction within the State Right of Way shall be done in accordance with all applicable sections of the Standard Specifications for Road and Bridge Construction dated May, 1957 of the State Highway Division.
3. The Contractor shall restore all existing highway facilities including pavement, embankment, drainage facilities, curbs, guard rails, signs, landscaping, etc., removed or damaged as a result of his operations, using materials and workmanship in accordance with all applicable sections of the Standard Specifications for Road and Bridge Construction, dated May 1957 and the Specifications for Installation of Miscellaneous Improvements within Federal Aid Highway, dated May 15, 1962.

Const. reinforced concrete channel to new alignment. (See Detail Below)

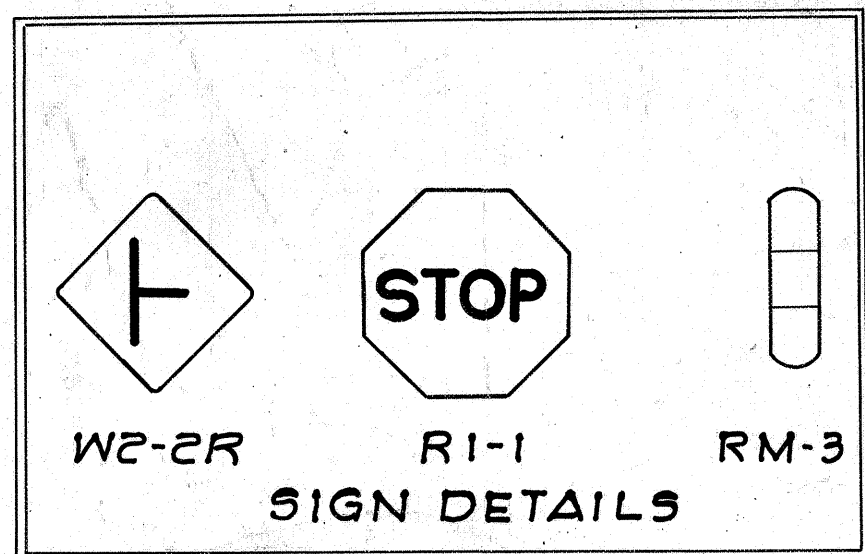
Edge of Pavement
Curve Data
 $\Delta = 50^\circ 43' 14''$
 $R = 230.00$
 $T = 138.04$
 $C = 229.03$
 $L = 239.73$

Edge of Pavement
Curve Data
 $\Delta = 113^\circ 25' 06''$
 $R = 50.00$
 $T = 76.14$
 $C = 63.59$
 $L = 98.98$

Edge of Pavement
Curve Data
 $\Delta = 43^\circ 25' 32''$
 $R = 1900.00$
 $T = 756.29$
 $C = 1405.83$
 $L = 1440.05$

W=12'	X	Y
0	0	0
10	0.19	0.75
20	0.75	1.20
30	1.20	1.60
40	1.60	1.95
50	1.95	2.25
60	2.25	2.50
70	2.50	2.70
80	2.70	2.85
90	2.85	2.95
100	2.95	3.00
110	3.00	3.00
120	3.00	3.00

Taper is based on the formula:
 $y = \frac{Wx^2}{L^2}$



TYPICAL SECTION
CONC. LINED CHANNEL
Scale: 1" = 3'-0"

PLAN
Scale: 1" = 40'

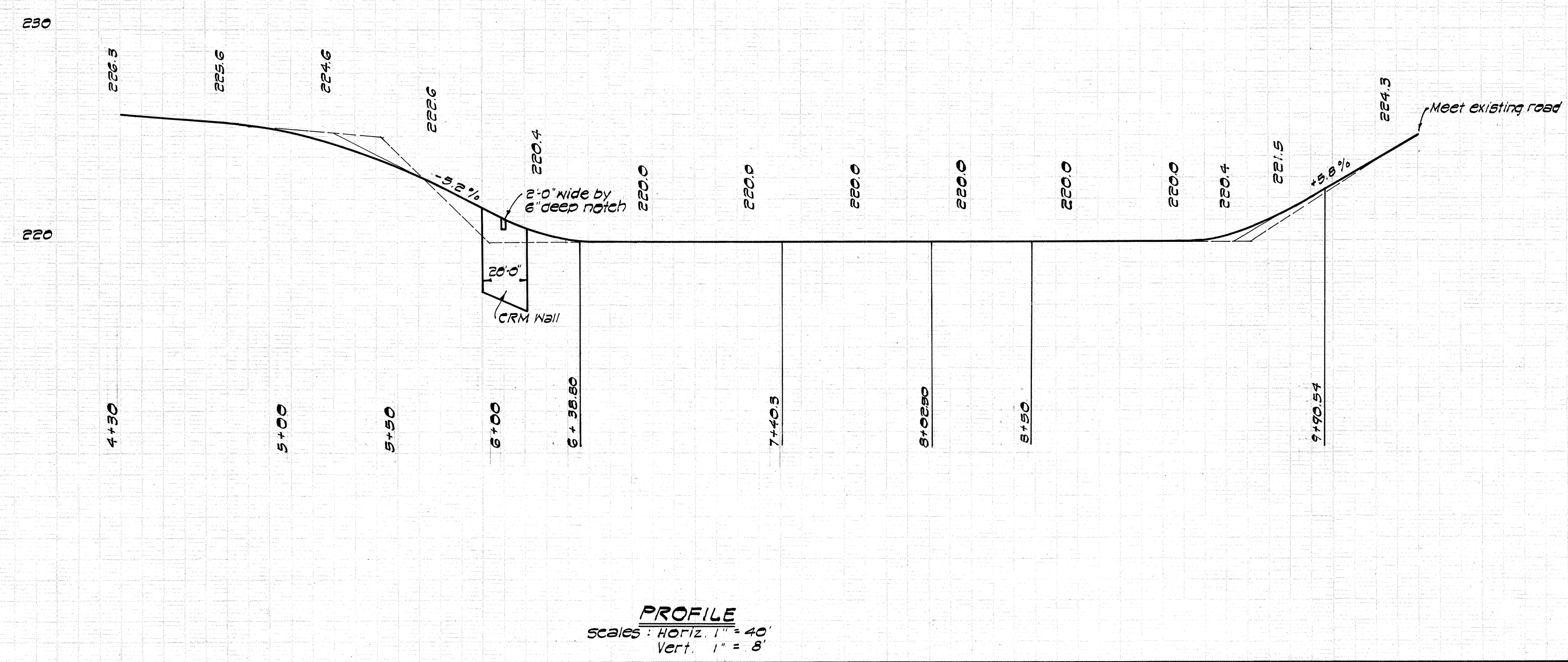
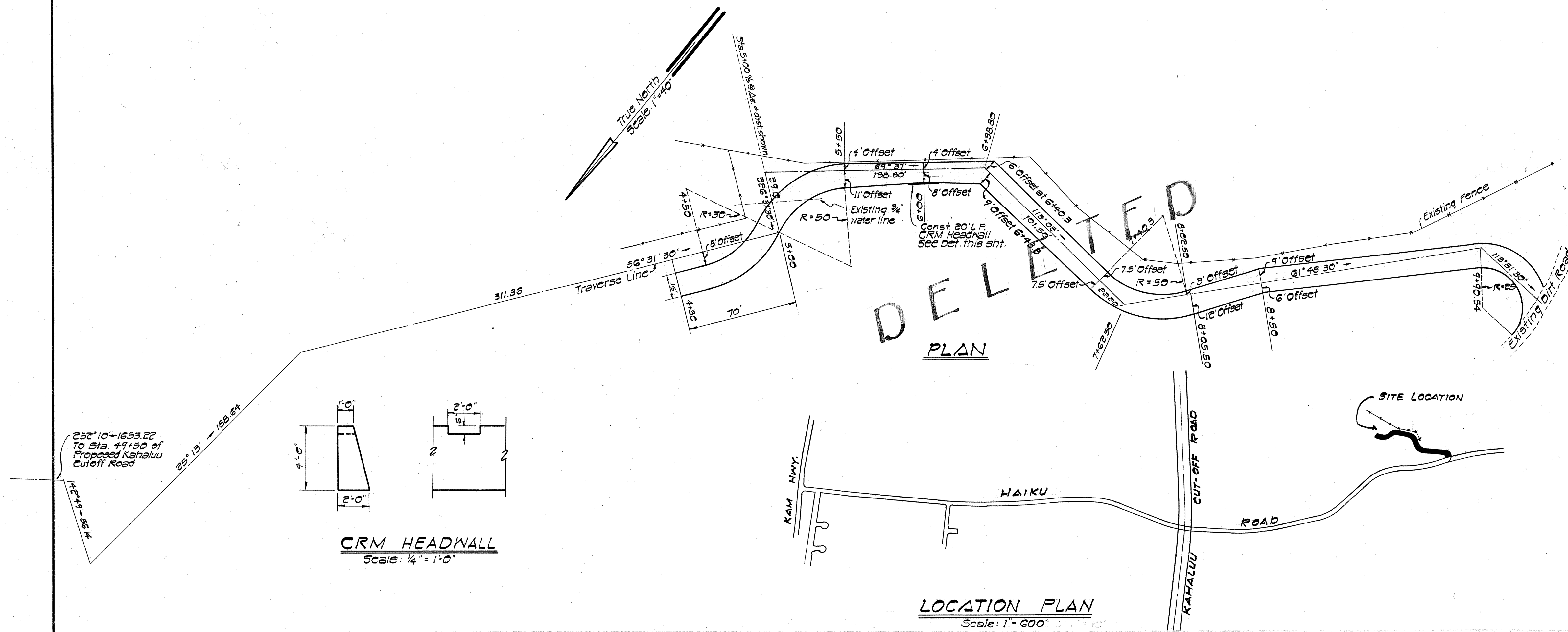
PROFILE
Scales: Horiz: 1" = 40'
Vert: 1" = 8'

PROPERTY OF DIVISION OF ENGINEERING

JOB NO. 12-63

5-24-63	Inv. of 24" RCP, Yellow A.C. Flare	B.M. 114	114.71
REVISION DATE	DESCRIPTION	MADE BY	APPROVED
COMMUNITY PLANNING INCORPORATED			
CIVIL ENGINEERS - SURVEYORS - CONSULTANT PLANNERS			
DEPARTMENT OF PUBLIC WORKS			
CITY AND COUNTY OF HONOLULU			
DIVISION OF ENGINEERING			
IMPROVEMENT DISTRICT NO. 162			
KAHALUU CUTOFF ROAD			
KANEHOE, HELEA, AHUIMANU & KAHALUU, KOOLAUPOKO, OAHU			
LIKELIKE HIGHWAY			
PLAN & PROFILE			
ENGINEER	MHI	DATE FINAL REPORT	6-27-63
DRAFTSMAN	L.A.	DATE	8-1-62
SCALE	AS SHOWN	CHECKED BY	STP
APPROVED	AS SHOWN	TRACER	R.A.
CHIEF ENGINEER	William C. Houg	APPROVED	George H. Houg
TRAFFIC ENGINEER, DEPT OF TRAFFIC	CLARENCE SHAK	DATE	8-1-62
C & C OF HONOLULU	CLARENCE SHAK	CHIEF ENGINEER, DIVISION OF ENGINEERING	George H. Houg
CLARENCE SHAK, ELECTRICAL ENGINEER, HAWAII REGISTRATION NO. 759			

Note: Road follows existing dirt road approximately.

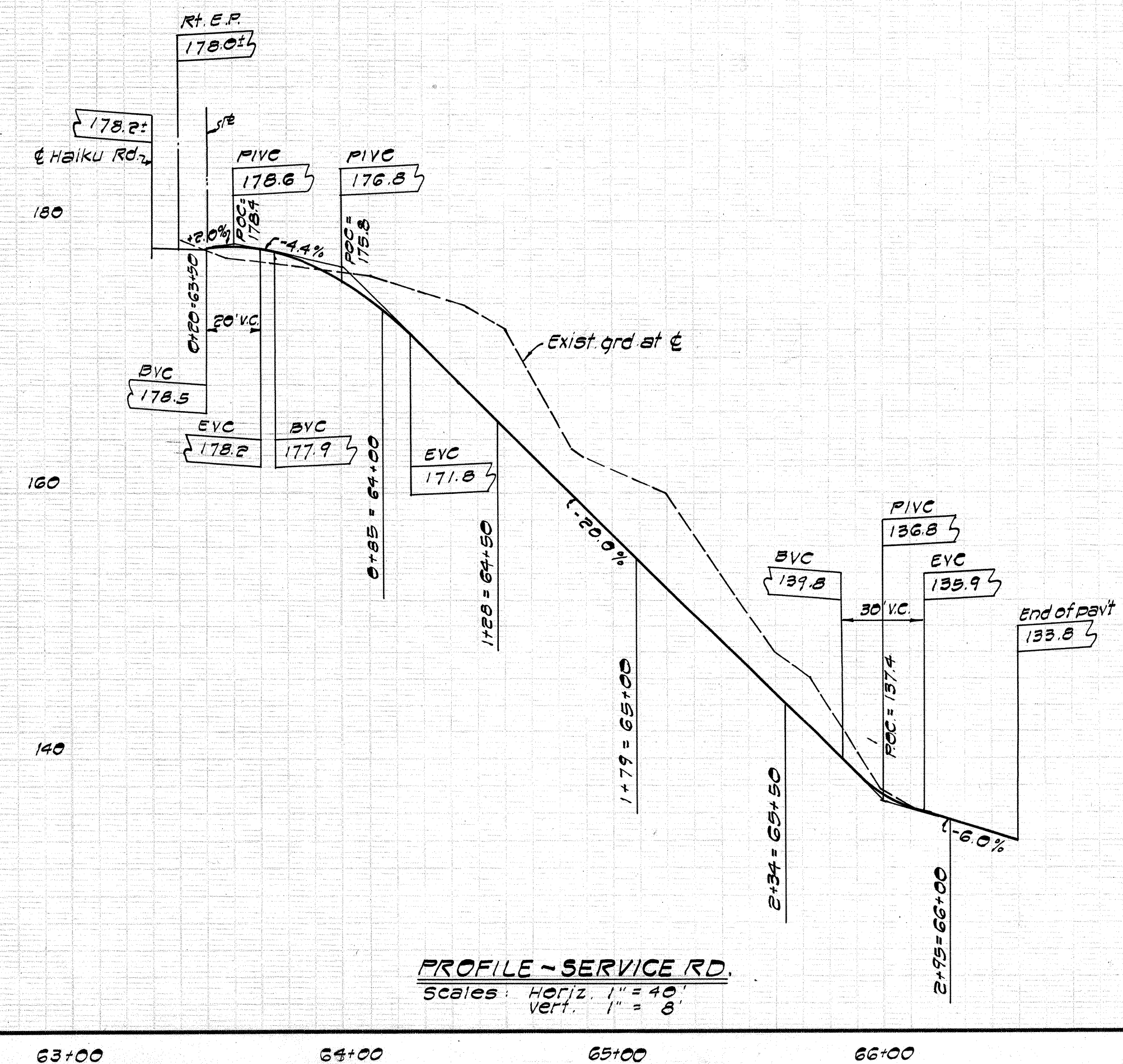
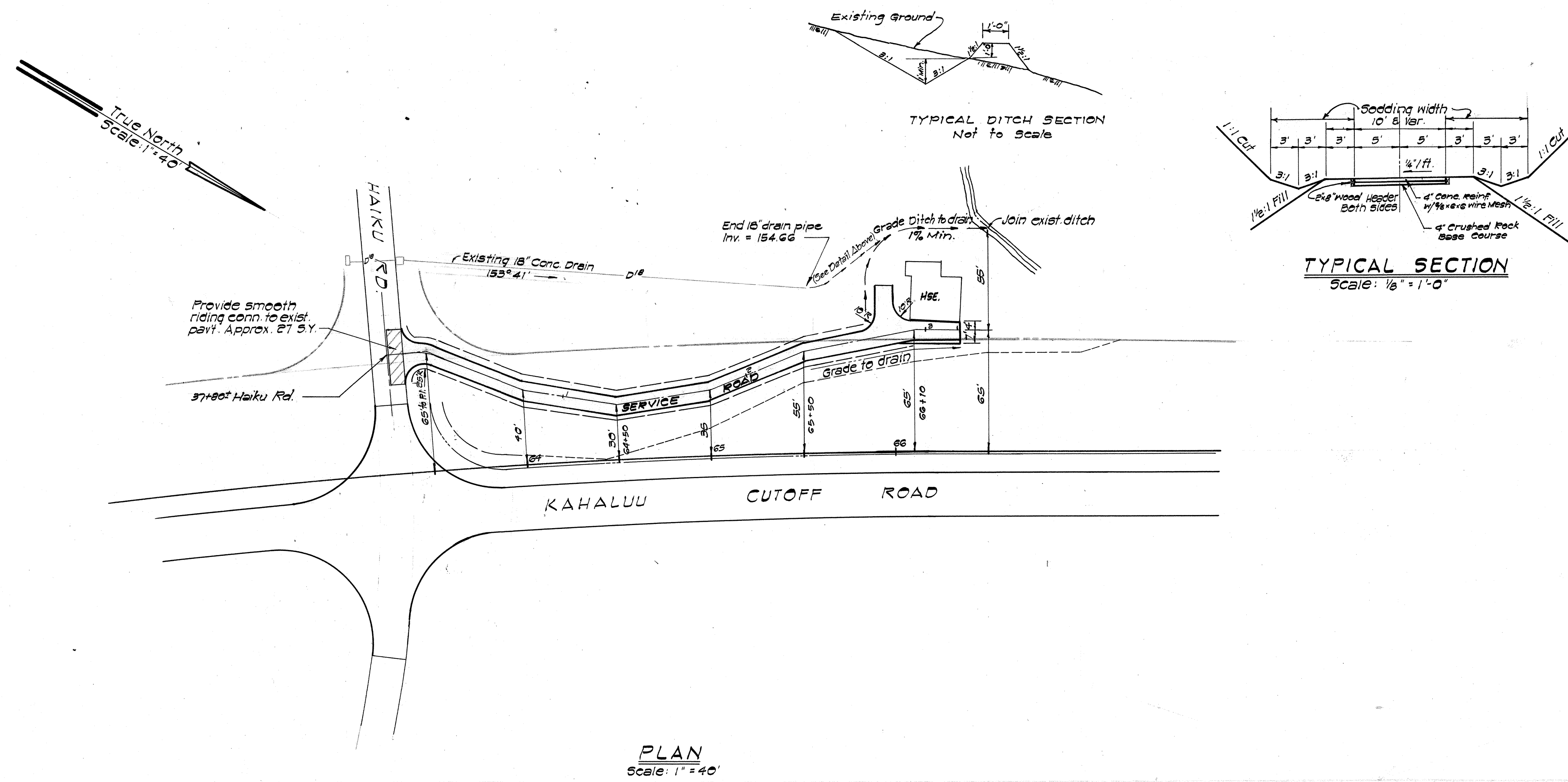


APPROVED: *Hegeun Davis*
LESSEE: *George H. H. H.* DATE: 9/13/62
ADDRESS: 314 Cooke St

PROPERTY OF DIVISION OF ENGINEERING

JOB NO. 12-63

REVISION	DATE	DESCRIPTION	MADE BY	APPROVED
COMMUNITY PLANNING INCORPORATED				
CIVIL ENGINEERS - SURVEYORS - CONSULTANT PLANNERS				
DEPARTMENT OF PUBLIC WORKS				
CITY AND COUNTY OF HONOLULU				
DIVISION OF ENGINEERING				
IMPROVEMENT DISTRICT NO. 162				
KAHALUU CUTOFF ROAD				
KANEHOE, HEEA, AHUIMANU & KAHALUU, KOOLAUPOKO, OAHU				
SERVICE ROAD (PASTURE)				
PLAN & PROFILE				
ENGINEER	M.H.I.	DATE: FINAL REPORT	6-27-63	
DRAFTSMAN	R.A.	DATE	8-1-1962	
SCALE	As Shown	CHECKED BY	S.T.F.	
APPROVED	<i>[Signature]</i>	TRACER	L.A.	
CHIEF ENGINEER	<i>[Signature]</i>	APPROVED	9/28/62	
W. S.	PROFILE	C. B.		
CR. SEC.	F. B.	S. B.		
W. M. BY:	F. W. BY:	S. BY:		
APPROVED: <i>George H. H. H.</i>				
FILE NO. 12-63				
POCKET NO. 3				
FOLDER NO. 24				



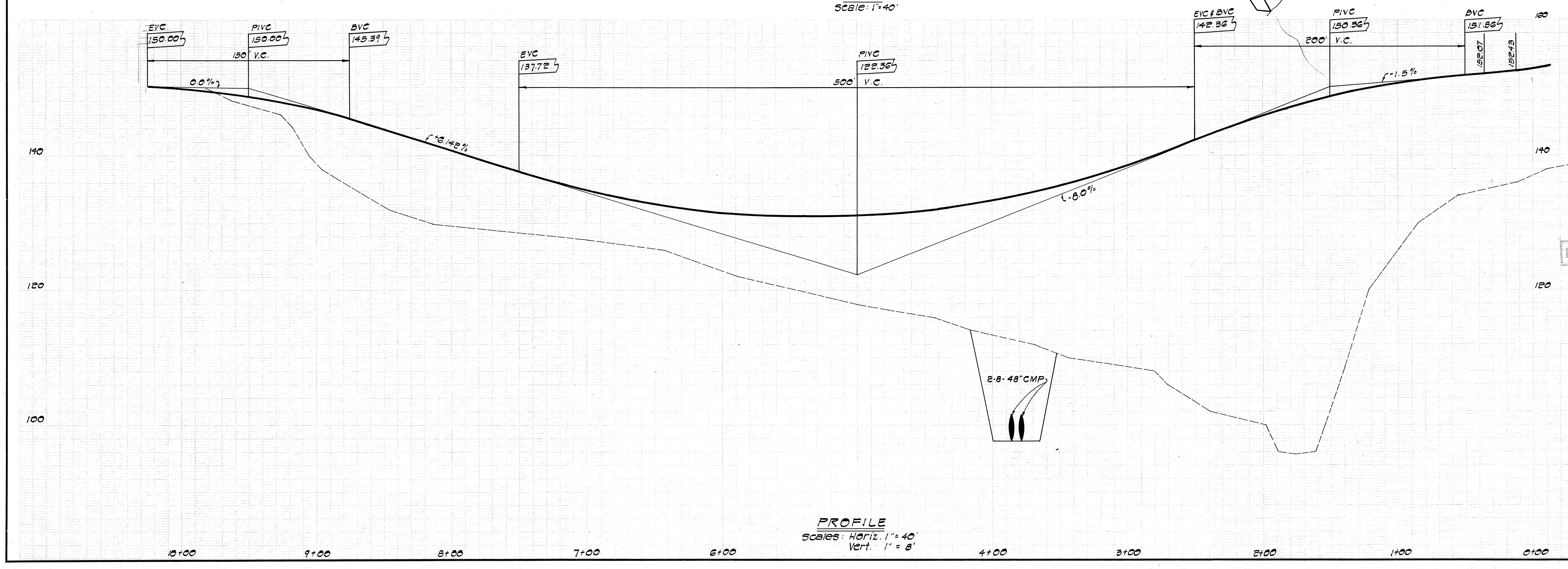
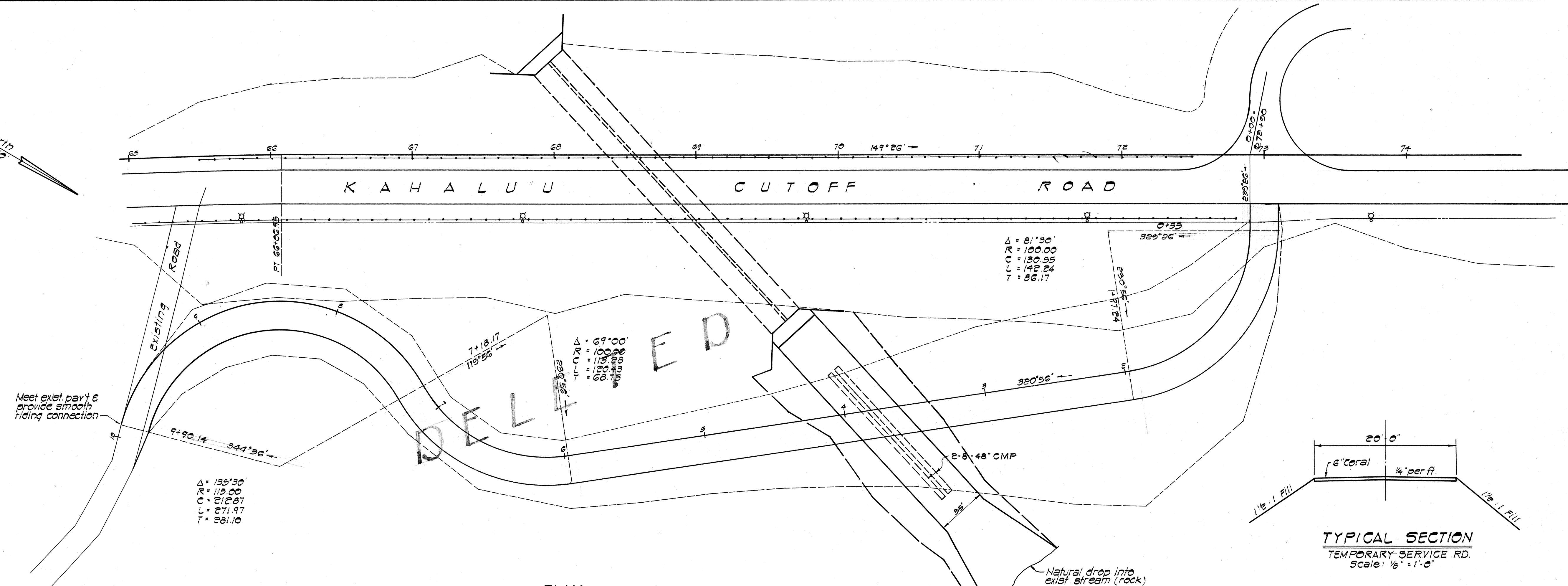
APPROVED:
E. P. Chong
 LESSOR
 46-305 Haiku Rd.
 ADDRESS

Sept 13, 1962
 DATE

PROPERTY OF DIVISION OF ENGINEERING

JOB NO. 12-63

REVISION	DATE	DESCRIPTION	MADE BY	APPROVED
COMMUNITY PLANNING INCORPORATED CIVIL ENGINEERS - SURVEYORS - CONSULTANT PLANNERS				
DEPARTMENT OF PUBLIC WORKS CITY AND COUNTY OF HONOLULU DIVISION OF ENGINEERING IMPROVEMENT DISTRICT NO. 182 KAHALUU CUTOFF ROAD KANEHOE, HEELE, AHUIMANU & KAHALUU, KOOLAUPOKO, OAHU SERVICE ROAD (HOME) PLAN & PROFILE				
ENGINEER	S.T.F.	DATE: FINAL REPORT	8-27-63	DATE
DRAFTSMAN	R.A.	CHECKED BY	M.H.I.	
SCALE	As Shown	TRACER	L.A.	
APPROVED	9/28/62			
CHIEF ENGINEER	DIRECTOR, DIVISION OF ENGINEERING			
W. S.	PROFILE	C. B.		
CR. SEC.	F. B.	S. B.		
W. M. BY:	F. W. BY:	S. BY:		
APPROVED <i>George K. Hines</i> REG. ENGR. CERT. NO. 1002				
FILE	POCKET	FOLDER	NO.	
12	9	3	25	



PROPERTY OF DIVISION OF ENGINEERING			
JOB NO. 12-63			
REVISION DATE	DESCRIPTION	MADE BY	APPROVED
COMMUNITY PLANNING INCORPORATED CIVIL ENGINEERS — SURVEYORS — CONSULTANT PLANNERS			
DEPARTMENT OF PUBLIC WORKS CITY AND COUNTY OF HONOLULU DIVISION OF ENGINEERING IMPROVEMENT DISTRICT NO. 162 KAHALUU CUTOFF ROAD KANEHOE, HEEIA, AHUIMANU & KAHALUU, KOOLAUPOKO, OAHU TEMPORARY SERVICE ROAD PLAN & PROFILE			
ENGINEER <u>M.H.I.</u> DRAFTSMAN <u>L.A.</u> SCALE <u>AS SHOWN</u> APPROVED <u>[Signature]</u> CHIEF ENGINEER <u>[Signature]</u>		DATE: FINAL REPORT <u>5-27-62</u> DATE <u>5-1-62</u> CHECKED BY <u>S.F.</u> TRACER <u>R.A.</u> APPROVED <u>[Signature]</u> ACT. DIRECTOR, DIVISION OF ENGINEERING <u>[Signature]</u>	
W. S. ☐ CR. SEC. ☐ W. M. BY: ☐	PROFILE ☐ F. B. ☐ F. W. BY: ☐	C. B. ☐ S. B. ☐ S. BY: ☐	
APPROVED REG. ENGR. CERT. NO. <u>710-E</u>			
FILE	POCKET	FOLDER	NO.
12	3	3	26